

## Attachment 2

# Temperature Modeling Output – SJR5Q

### Modeling





**Table 1: Monthly Averages of Simulated Millerton Release (Head of Reach 1) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	996	1,389	393 (39%)
Mar 16-31	915	1,521	607 (66%)
Apr 1-15	1,044	1,595	552 (53%)
Apr 16-30	1,160	1,527	367 (32%)
May 1-31	1,283	1,171	-112 (-9%)
Jun 1-30	1,306	1,305	-1 (0%)
Jul 1-31	910	1,019	109 (12%)
Aug 1-31	237	358	121 (51%)
Sep 1-30	207	350	143 (69%)
Oct 1-31	182	364	181 (99%)
Nov 1-10	144	429	285 (198%)
Nov 11-20	141	451	310 (220%)
Nov 21-30	176	353	178 (101%)
Dec 1-31	454	325	-128 (-28%)
Jan 1-31	792	669	-123 (-16%)
Feb 1-28	1,085	937	-148 (-14%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 2: Monthly Averages of Simulated Millerton Release (Head of Reach 1) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2,528	2,347	-181 (-7%)
Mar 16-31	2,309	2,439	130 (6%)
Apr 1-15	2,791	2,768	-24 (-1%)
Apr 16-30	3,108	2,917	-191 (-6%)
May 1-31	3,240	2,665	-575 (-18%)
Jun 1-30	3,462	3,185	-277 (-8%)
Jul 1-31	2,279	2,356	77 (3%)
Aug 1-31	255	373	117 (46%)
Sep 1-30	207	350	143 (69%)
Oct 1-31	222	364	142 (64%)
Nov 1-10	161	429	267 (166%)
Nov 11-20	172	451	279 (162%)
Nov 21-30	276	353	77 (28%)
Dec 1-31	832	639	-194 (-23%)
Jan 1-31	584	516	-68 (-12%)
Feb 1-28	1,131	946	-185 (-16%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 3: Monthly Averages of Simulated Millerton Release (Head of Reach 1) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	457	1,024	566 (124%)
Mar 16-31	400	1,323	923 (231%)
Apr 1-15	224	1,528	1,303 (582%)
Apr 16-30	244	1,313	1,069 (438%)
May 1-31	564	498	-66 (-12%)
Jun 1-30	301	397	96 (32%)
Jul 1-31	225	350	125 (55%)
Aug 1-31	227	350	123 (54%)
Sep 1-30	208	350	142 (68%)
Oct 1-31	161	364	202 (125%)
Nov 1-10	135	429	294 (218%)
Nov 11-20	124	451	327 (263%)
Nov 21-30	122	353	231 (189%)
Dec 1-31	618	158	-460 (-74%)
Jan 1-31	2,455	2,044	-412 (-17%)
Feb 1-28	1,517	1,343	-174 (-11%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 4: Monthly Averages of Simulated Millerton Release (Head of Reach 1) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	128	859	731 (570%)
Mar 16-31	135	1,009	874 (649%)
Apr 1-15	145	992	847 (584%)
Apr 16-30	160	832	672 (421%)
May 1-31	186	424	238 (128%)
Jun 1-30	195	350	155 (79%)
Jul 1-31	225	350	125 (55%)
Aug 1-31	227	350	123 (54%)
Sep 1-30	207	350	143 (69%)
Oct 1-31	161	364	202 (125%)
Nov 1-10	135	429	294 (218%)
Nov 11-20	124	451	327 (263%)
Nov 21-30	122	353	231 (189%)
Dec 1-31	118	158	40 (34%)
Jan 1-31	209	167	-42 (-20%)
Feb 1-28	1,108	922	-185 (-17%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 5: Monthly Averages of Simulated Millerton Release (Head of Reach 1) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	124	857	733 (589%)
Mar 16-31	135	866	731 (543%)
Apr 1-15	145	510	365 (252%)
Apr 16-30	160	350	190 (119%)
May 1-31	186	350	164 (88%)
Jun 1-30	195	350	155 (79%)
Jul 1-31	225	350	125 (55%)
Aug 1-31	227	350	123 (54%)
Sep 1-30	207	350	143 (69%)
Oct 1-31	161	364	202 (125%)
Nov 1-10	135	429	294 (218%)
Nov 11-20	124	451	327 (263%)
Nov 21-30	122	353	231 (189%)
Dec 1-31	118	158	40 (34%)
Jan 1-31	161	140	-21 (-13%)
Feb 1-28	552	532	-20 (-4%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 6: Monthly Averages of Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,068	1,440	372 (35%)
Mar 16-31	980	1,583	603 (62%)
Apr 1-15	989	1,545	556 (56%)
Apr 16-30	1,042	1,426	384 (37%)
May 1-31	1,148	1,045	-103 (-9%)
Jun 1-30	1,109	1,103	-6 (-1%)
Jul 1-31	758	865	107 (14%)
Aug 1-31	51	171	120 (236%)
Sep 1-30	42	183	142 (338%)
Oct 1-31	49	229	180 (365%)
Nov 1-10	46	321	275 (602%)
Nov 11-20	36	353	317 (868%)
Nov 21-30	80	280	199 (249%)
Dec 1-31	391	273	-118 (-30%)
Jan 1-31	831	703	-128 (-15%)
Feb 1-28	1,178	1,022	-156 (-13%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 7: Monthly Averages of Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2,791	2,571	-221 (-8%)
Mar 16-31	2,574	2,703	130 (5%)
Apr 1-15	2,819	2,805	-14 (-1%)
Apr 16-30	2,999	2,820	-180 (-6%)
May 1-31	3,118	2,548	-569 (-18%)
Jun 1-30	3,208	2,923	-285 (-9%)
Jul 1-31	2,221	2,290	69 (3%)
Aug 1-31	80	197	116 (145%)
Sep 1-30	47	189	142 (303%)
Oct 1-31	94	238	143 (152%)
Nov 1-10	78	326	248 (317%)
Nov 11-20	61	356	295 (483%)
Nov 21-30	171	292	121 (71%)
Dec 1-31	781	583	-198 (-25%)
Jan 1-31	584	511	-73 (-12%)
Feb 1-28	1,245	1,054	-191 (-15%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 8: Monthly Averages of Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	511	1,078	567 (111%)
Mar 16-31	381	1,271	889 (233%)
Apr 1-15	139	1,425	1,286 (927%)
Apr 16-30	128	1,239	1,111 (865%)
May 1-31	425	381	-44 (-10%)
Jun 1-30	135	223	88 (65%)
Jul 1-31	25	150	125 (503%)
Aug 1-31	31	154	122 (390%)
Sep 1-30	33	174	140 (422%)
Oct 1-31	25	224	199 (801%)
Nov 1-10	34	323	289 (841%)
Nov 11-20	25	353	328 (1,290%)
Nov 21-30	46	287	241 (526%)
Dec 1-31	587	179	-408 (-70%)
Jan 1-31	2,630	2,194	-436 (-17%)
Feb 1-28	1,743	1,562	-181 (-10%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 9: Monthly Averages of Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	81	794	712 (876%)
Mar 16-31	121	996	875 (726%)
Apr 1-15	51	900	849 (1,664%)
Apr 16-30	35	725	690 (1,957%)
May 1-31	46	294	248 (536%)
Jun 1-30	27	182	155 (579%)
Jul 1-31	28	154	125 (440%)
Aug 1-31	43	165	122 (286%)
Sep 1-30	46	188	142 (312%)
Oct 1-31	29	229	199 (679%)
Nov 1-10	27	316	289 (1,074%)
Nov 11-20	24	352	328 (1,371%)
Nov 21-30	29	270	241 (841%)
Dec 1-31	38	83	45 (120%)
Jan 1-31	155	118	-37 (-24%)
Feb 1-28	1,146	956	-190 (-17%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 10: Monthly Averages of Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	53	767	715 (1,358%)
Mar 16-31	60	808	748 (1,247%)
Apr 1-15	38	423	385 (1,014%)
Apr 16-30	32	223	192 (608%)
May 1-31	39	204	165 (421%)
Jun 1-30	22	177	155 (705%)
Jul 1-31	26	152	125 (479%)
Aug 1-31	33	155	122 (369%)
Sep 1-30	38	180	142 (372%)
Oct 1-31	21	220	199 (965%)
Nov 1-10	25	314	289 (1,157%)
Nov 11-20	21	349	328 (1,571%)
Nov 21-30	25	266	241 (974%)
Dec 1-31	36	81	45 (124%)
Jan 1-31	240	222	-19 (-8%)
Feb 1-28	540	509	-31 (-6%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 11: Monthly Averages of Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - Restoration All Years**

<b>Month</b>	<b>All Year Summary</b>		
	<b>No-Action Alternative (cfs)</b>	<b>Proposed Action (cfs)</b>	<b>Change from No Action (cfs)</b>
Mar 1-15	279	746	467 (167%)
Mar 16-31	206	812	606 (294%)
Apr 1-15	131	696	565 (431%)
Apr 16-30	119	573	454 (383%)
May 1-31	205	354	149 (73%)
Jun 1-30	297	387	91 (31%)
Jul 1-31	190	278	88 (46%)
Aug 1-31	22	117	95 (432%)
Sep 1-30	10	128	119 (1,227%)
Oct 1-31	17	172	154 (893%)
Nov 1-10	18	256	238 (1,288%)
Nov 11-20	3	281	278 (10,018%)
Nov 21-30	7	206	198 (2,655%)
Dec 1-31	63	68	5 (7%)
Jan 1-31	143	118	-26 (-18%)
Feb 1-28	314	421	107 (34%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 12: Monthly Averages of Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - Restoration Wet**

<b>Month</b>	<b>Restoration Wet Year Summary</b>		
	<b>No-Action Alternative (cfs)</b>	<b>Proposed Action (cfs)</b>	<b>Change from No Action (cfs)</b>
Mar 1-15	580	651	71 (12%)
Mar 16-31	392	580	188 (48%)
Apr 1-15	318	472	154 (48%)
Apr 16-30	299	434	135 (45%)
May 1-31	502	583	81 (16%)
Jun 1-30	834	893	59 (7%)
Jul 1-31	565	640	75 (13%)
Aug 1-31	50	143	93 (186%)
Sep 1-30	15	133	118 (792%)
Oct 1-31	45	177	132 (297%)
Nov 1-10	50	247	197 (396%)
Nov 11-20	6	253	247 (4,152%)
Nov 21-30	11	178	167 (1,465%)
Dec 1-31	67	76	9 (13%)
Jan 1-31	40	37	-3 (-9%)
Feb 1-28	230	394	165 (72%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 13: Monthly Averages of Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	365	958	593 (163%)
Mar 16-31	267	1,093	826 (309%)
Apr 1-15	100	1,199	1,100 (1,105%)
Apr 16-30	86	1,078	993 (1,159%)
May 1-31	169	327	158 (94%)
Jun 1-30	84	156	72 (86%)
Jul 1-31	4	96	91 (2,043%)
Aug 1-31	7	99	91 (1,227%)
Sep 1-30	7	118	111 (1,499%)
Oct 1-31	5	168	164 (3,556%)
Nov 1-10	4	267	263 (6,215%)
Nov 11-20	2	298	296 (14,613%)
Nov 21-30	11	234	223 (1,967%)
Dec 1-31	213	127	-86 (-40%)
Jan 1-31	309	258	-51 (-17%)
Feb 1-28	265	357	93 (35%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 14: Monthly Averages of Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	34	731	697 (2,060%)
Mar 16-31	69	934	865 (1,250%)
Apr 1-15	13	844	831 (6,613%)
Apr 16-30	2	674	672 (30,442%)
May 1-31	7	242	235 (3,413%)
Jun 1-30	4	127	123 (2,922%)
Jul 1-31	3	99	96 (3,492%)
Aug 1-31	11	110	99 (876%)
Sep 1-30	9	133	124 (1,439%)
Oct 1-31	3	173	170 (5,360%)
Nov 1-10	0	259	259 (71,298%)
Nov 11-20	1	297	296 (30,486%)
Nov 21-30	4	217	213 (5,039%)
Dec 1-31	7	41	34 (501%)
Jan 1-31	109	70	-39 (-36%)
Feb 1-28	430	502	71 (17%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 15: Monthly Averages of Simulated San Joaquin River Below Chowchilla  
Bypass Diversion (Head Reach 2B) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	8	705	697 (9,263%)
Mar 16-31	13	756	743 (5,810%)
Apr 1-15	6	374	368 (6,357%)
Apr 16-30	3	169	166 (6,051%)
May 1-31	4	149	146 (3,974%)
Jun 1-30	1	122	121 (19,608%)
Jul 1-31	1	97	96 (7,113%)
Aug 1-31	4	100	96 (2,164%)
Sep 1-30	5	125	120 (2,526%)
Oct 1-31	1	164	164 (20,921%)
Nov 1-10	1	257	256 (19,235%)
Nov 11-20	0	294	293 (60,763%)
Nov 21-30	2	214	212 (10,467%)
Dec 1-31	3	38	35 (1,246%)
Jan 1-31	184	164	-20 (-11%)
Feb 1-28	357	431	73 (21%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 16: Monthly Averages of Simulated San Joaquin River Below Mendota Pool  
(Head of Reach 3) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	906	1,355	449 (50%)
Mar 16-31	857	1,427	570 (66%)
Apr 1-15	840	1,402	562 (67%)
Apr 16-30	919	1,358	439 (48%)
May 1-31	832	974	142 (17%)
Jun 1-30	818	892	75 (9%)
Jul 1-31	697	766	69 (10%)
Aug 1-31	464	538	74 (16%)
Sep 1-30	293	388	94 (32%)
Oct 1-31	281	413	132 (47%)
Nov 1-10	218	430	212 (97%)
Nov 11-20	238	492	254 (107%)
Nov 21-30	290	468	179 (62%)
Dec 1-31	489	487	-2 (0%)
Jan 1-31	600	571	-29 (-5%)
Feb 1-28	829	920	91 (11%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 17: Monthly Averages of Simulated San Joaquin River Below Mendota Pool  
(Head of Reach 3) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2,090	2,156	66 (3%)
Mar 16-31	2,090	2,266	176 (8%)
Apr 1-15	2,140	2,309	169 (8%)
Apr 16-30	2,366	2,500	134 (6%)
May 1-31	1,950	2,032	82 (4%)
Jun 1-30	1,574	1,633	59 (4%)
Jul 1-31	1,042	1,107	65 (6%)
Aug 1-31	447	520	72 (16%)
Sep 1-30	263	352	89 (34%)
Oct 1-31	360	476	115 (32%)
Nov 1-10	355	530	175 (49%)
Nov 11-20	469	695	225 (48%)
Nov 21-30	672	819	147 (22%)
Dec 1-31	989	993	4 (0%)
Jan 1-31	897	889	-8 (-1%)
Feb 1-28	881	1,029	148 (17%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 18: Monthly Averages of Simulated San Joaquin River Below Mendota Pool  
(Head of Reach 3) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	404	975	571 (141%)
Mar 16-31	336	1,041	705 (210%)
Apr 1-15	170	1,272	1,101 (647%)
Apr 16-30	159	1,127	968 (610%)
May 1-31	390	560	170 (44%)
Jun 1-30	481	531	50 (10%)
Jul 1-31	499	567	69 (14%)
Aug 1-31	469	538	69 (15%)
Sep 1-30	311	400	88 (28%)
Oct 1-31	238	379	140 (59%)
Nov 1-10	144	383	239 (166%)
Nov 11-20	114	385	271 (237%)
Nov 21-30	89	296	207 (231%)
Dec 1-31	376	285	-91 (-24%)
Jan 1-31	1,091	1,037	-54 (-5%)
Feb 1-28	1,429	1,513	84 (6%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 19: Monthly Averages of Simulated San Joaquin River Below Mendota Pool  
(Head of Reach 3) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	281	957	676 (241%)
Mar 16-31	209	1,059	850 (407%)
Apr 1-15	198	1,011	813 (411%)
Apr 16-30	215	866	652 (304%)
May 1-31	221	436	216 (98%)
Jun 1-30	420	519	99 (24%)
Jul 1-31	537	610	72 (13%)
Aug 1-31	476	556	80 (17%)
Sep 1-30	307	411	104 (34%)
Oct 1-31	239	384	145 (61%)
Nov 1-10	145	376	231 (159%)
Nov 11-20	116	385	270 (233%)
Nov 21-30	85	277	192 (228%)
Dec 1-31	166	193	27 (16%)
Jan 1-31	140	97	-42 (-30%)
Feb 1-28	570	621	51 (9%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 20: Monthly Averages of Simulated San Joaquin River Below Mendota Pool  
(Head of Reach 3) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	264	933	669 (254%)
Mar 16-31	184	912	728 (396%)
Apr 1-15	200	551	351 (175%)
Apr 16-30	211	354	142 (67%)
May 1-31	219	342	122 (56%)
Jun 1-30	420	516	95 (23%)
Jul 1-31	536	606	70 (13%)
Aug 1-31	474	546	72 (15%)
Sep 1-30	307	405	97 (32%)
Oct 1-31	238	375	137 (57%)
Nov 1-10	145	374	229 (158%)
Nov 11-20	115	382	267 (232%)
Nov 21-30	85	274	190 (224%)
Dec 1-31	165	191	26 (16%)
Jan 1-31	188	164	-24 (-13%)
Feb 1-28	450	504	54 (12%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 21: Monthly Averages of Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	693	1,113	421 (61%)
Mar 16-31	721	1,275	554 (77%)
Apr 1-15	674	1,217	543 (81%)
Apr 16-30	726	1,159	433 (60%)
May 1-31	635	786	151 (24%)
Jun 1-30	453	526	73 (16%)
Jul 1-31	313	377	65 (21%)
Aug 1-31	152	224	73 (48%)
Sep 1-30	145	238	93 (64%)
Oct 1-31	133	264	131 (98%)
Nov 1-10	98	296	198 (202%)
Nov 11-20	140	394	254 (182%)
Nov 21-30	230	420	190 (83%)
Dec 1-31	357	361	4 (1%)
Jan 1-31	561	534	-27 (-5%)
Feb 1-28	696	767	71 (10%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 22: Monthly Averages of Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,866	1,922	55 (3%)
Mar 16-31	1,961	2,114	153 (8%)
Apr 1-15	1,947	2,098	151 (8%)
Apr 16-30	2,145	2,276	131 (6%)
May 1-31	1,740	1,824	85 (5%)
Jun 1-30	1,143	1,208	65 (6%)
Jul 1-31	698	749	51 (7%)
Aug 1-31	165	235	71 (43%)
Sep 1-30	166	254	88 (53%)
Oct 1-31	226	343	117 (52%)
Nov 1-10	244	391	147 (60%)
Nov 11-20	361	589	228 (63%)
Nov 21-30	610	766	157 (26%)
Dec 1-31	853	862	8 (1%)
Jan 1-31	881	874	-7 (-1%)
Feb 1-28	767	892	125 (16%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 23: Monthly Averages of Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	283	824	540 (191%)
Mar 16-31	224	875	651 (291%)
Apr 1-15	69	1,088	1,019 (1,467%)
Apr 16-30	2	930	928 (54.647%)
May 1-31	206	404	198 (96%)
Jun 1-30	200	234	33 (17%)
Jul 1-31	136	206	70 (52%)
Aug 1-31	157	226	69 (44%)
Sep 1-30	151	238	87 (57%)
Oct 1-31	91	228	137 (151%)
Nov 1-10	21	254	233 (1,117%)
Nov 11-20	26	297	271 (1,044%)
Nov 21-30	35	254	219 (624%)
Dec 1-31	246	163	-83 (-34%)
Jan 1-31	1,028	975	-53 (-5%)
Feb 1-28	1,277	1,349	72 (6%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 24: Monthly Averages of Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	32	667	635 (1,974%)
Mar 16-31	56	904	849 (1,524%)
Apr 1-15	14	823	809 (5,741%)
Apr 16-30	13	679	666 (5,004%)
May 1-31	20	247	227 (1,152%)
Jun 1-30	59	157	98 (165%)
Jul 1-31	104	177	73 (70%)
Aug 1-31	128	208	80 (62%)
Sep 1-30	122	224	102 (84%)
Oct 1-31	76	219	142 (187%)
Nov 1-10	20	244	224 (1,132%)
Nov 11-20	18	288	269 (1,457%)
Nov 21-30	22	227	205 (918%)
Dec 1-31	36	69	33 (90%)
Jan 1-31	93	57	-36 (-39%)
Feb 1-28	423	451	28 (7%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 25: Monthly Averages of Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	17	645	628 (3,732%)
Mar 16-31	31	778	746 (2,395%)
Apr 1-15	34	410	376 (1,102%)
Apr 16-30	34	177	143 (415%)
May 1-31	35	155	120 (340%)
Jun 1-30	73	168	95 (131%)
Jul 1-31	124	195	71 (57%)
Aug 1-31	153	225	72 (47%)
Sep 1-30	135	231	96 (71%)
Oct 1-31	88	222	134 (153%)
Nov 1-10	21	242	221 (1,061%)
Nov 11-20	22	288	266 (1,219%)
Nov 21-30	25	228	203 (803%)
Dec 1-31	37	68	31 (86%)
Jan 1-31	143	123	-20 (-14%)
Feb 1-28	325	358	33 (10%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 26: Monthly Averages of Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	2	1 (75%)
Mar 16-31	1	2	1 (78%)
Apr 1-15	1	2	1 (105%)
Apr 16-30	1	2	1 (99%)
May 1-31	1	1	1 (66%)
Jun 1-30	1	1	0 (34%)
Jul 1-31	1	1	0 (12%)
Aug 1-31	1	1	0 (11%)
Sep 1-30	1	1	0 (13%)
Oct 1-31	1	1	0 (37%)
Nov 1-10	0	1	1 (216%)
Nov 11-20	0	1	1 (232%)
Nov 21-30	1	1	1 (138%)
Dec 1-31	1	1	0 (21%)
Jan 1-31	1	1	0 (2%)
Feb 1-28	1	1	0 (55%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 27: Monthly Averages of Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2	2	0 (1%)
Mar 16-31	2	2	0 (10%)
Apr 1-15	2	2	0 (10%)
Apr 16-30	2	2	0 (9%)
May 1-31	2	2	0 (4%)
Jun 1-30	2	2	0 (9%)
Jul 1-31	1	1	0 (6%)
Aug 1-31	1	1	0 (11%)
Sep 1-30	1	1	0 (12%)
Oct 1-31	1	1	0 (28%)
Nov 1-10	1	1	1 (100%)
Nov 11-20	1	1	1 (97%)
Nov 21-30	1	1	0 (49%)
Dec 1-31	1	1	0 (10%)
Jan 1-31	1	1	0 (2%)
Feb 1-28	1	1	0 (46%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 28: Monthly Averages of Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	1	1 (134%)
Mar 16-31	1	1	1 (163%)
Apr 1-15	0	2	1 (547%)
Apr 16-30	0	2	2 (6,668%)
May 1-31	0	1	1 (225%)
Jun 1-30	1	1	0 (30%)
Jul 1-31	1	1	0 (15%)
Aug 1-31	1	1	0 (9%)
Sep 1-30	1	1	0 (10%)
Oct 1-31	1	1	0 (38%)
Nov 1-10	0	1	1 (364%)
Nov 11-20	0	1	1 (388%)
Nov 21-30	0	1	1 (216%)
Dec 1-31	1	1	0 (14%)
Jan 1-31	1	1	0 (1%)
Feb 1-28	1	2	0 (34%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 29: Monthly Averages of Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	0	1	1 (444%)
Mar 16-31	0	2	1 (251%)
Apr 1-15	0	1	1 (919%)
Apr 16-30	0	1	1 (925%)
May 1-31	0	1	1 (492%)
Jun 1-30	1	1	1 (101%)
Jul 1-31	1	1	0 (17%)
Aug 1-31	1	1	0 (13%)
Sep 1-30	1	1	0 (17%)
Oct 1-31	1	1	0 (51%)
Nov 1-10	0	1	1 (398%)
Nov 11-20	0	1	1 (571%)
Nov 21-30	0	1	1 (374%)
Dec 1-31	0	0	0 (61%)
Jan 1-31	0	0	0 (3%)
Feb 1-28	1	1	1 (93%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 30: Monthly Averages of Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	0	1	1 (646%)
Mar 16-31	0	1	1 (363%)
Apr 1-15	0	1	1 (292%)
Apr 16-30	0	1	1 (189%)
May 1-31	0	1	1 (209%)
Jun 1-30	1	1	0 (75%)
Jul 1-31	1	1	0 (15%)
Aug 1-31	1	1	0 (8%)
Sep 1-30	1	1	0 (13%)
Oct 1-31	1	1	0 (40%)
Nov 1-10	0	1	1 (357%)
Nov 11-20	0	1	1 (467%)
Nov 21-30	0	1	1 (322%)
Dec 1-31	0	0	0 (57%)
Jan 1-31	0	0	0 (8%)
Feb 1-28	1	1	0 (75%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 31: Monthly Averages of Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	211	184	-28 (-13%)
Mar 16-31	233	230	-4 (-2%)
Apr 1-15	239	227	-12 (-5%)
Apr 16-30	286	260	-26 (-9%)
May 1-31	255	184	-71 (-28%)
Jun 1-30	171	135	-37 (-21%)
Jul 1-31	169	157	-12 (-7%)
Aug 1-31	2	2	0 (10%)
Sep 1-30	2	2	0 (12%)
Oct 1-31	2	3	0 (25%)
Nov 1-10	2	3	1 (70%)
Nov 11-20	1	3	1 (93%)
Nov 21-30	9	8	-1 (-12%)
Dec 1-31	87	63	-24 (-27%)
Jan 1-31	229	197	-33 (-14%)
Feb 1-28	252	203	-49 (-20%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 32: Monthly Averages of Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	631	544	-86 (-14%)
Mar 16-31	693	681	-12 (-2%)
Apr 1-15	715	673	-42 (-6%)
Apr 16-30	857	774	-83 (-10%)
May 1-31	739	547	-192 (-26%)
Jun 1-30	511	400	-111 (-22%)
Jul 1-31	502	466	-36 (-7%)
Aug 1-31	2	2	0 (10%)
Sep 1-30	2	2	0 (11%)
Oct 1-31	2	3	0 (19%)
Nov 1-10	2	3	1 (39%)
Nov 11-20	2	3	1 (60%)
Nov 21-30	22	17	-5 (-24%)
Dec 1-31	237	178	-59 (-25%)
Jan 1-31	230	205	-25 (-11%)
Feb 1-28	319	236	-83 (-26%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 33: Monthly Averages of Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	3	4	0 (15%)
Mar 16-31	8	4	-4 (-47%)
Apr 1-15	1	5	4 (384%)
Apr 16-30	0	4	4 (1,983%)
May 1-31	38	3	-35 (-92%)
Jun 1-30	2	2	0 (17%)
Jul 1-31	2	2	0 (12%)
Aug 1-31	2	2	0 (9%)
Sep 1-30	2	2	0 (11%)
Oct 1-31	2	2	0 (26%)
Nov 1-10	1	2	1 (98%)
Nov 11-20	1	3	1 (120%)
Nov 21-30	1	3	1 (86%)
Dec 1-31	21	2	-19 (-90%)
Jan 1-31	729	612	-117 (-16%)
Feb 1-28	573	496	-77 (-13%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 34: Monthly Averages of Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	3	2 (199%)
Mar 16-31	1	4	2 (168%)
Apr 1-15	1	4	3 (328%)
Apr 16-30	1	4	3 (337%)
May 1-31	1	3	2 (199%)
Jun 1-30	1	2	1 (55%)
Jul 1-31	2	2	0 (13%)
Aug 1-31	2	2	0 (12%)
Sep 1-30	2	2	0 (15%)
Oct 1-31	2	2	1 (32%)
Nov 1-10	1	2	1 (98%)
Nov 11-20	1	3	1 (130%)
Nov 21-30	1	2	1 (99%)
Dec 1-31	1	2	0 (21%)
Jan 1-31	1	1	0 (-2%)
Feb 1-28	102	79	-23 (-23%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 35: Monthly Averages of Simulated San Joaquin River Below Mariposa Bypass  
Return (Head of Reach 4B2) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	3	2 (243%)
Mar 16-31	1	4	2 (181%)
Apr 1-15	1	3	2 (168%)
Apr 16-30	1	2	1 (83%)
May 1-31	1	2	1 (117%)
Jun 1-30	2	2	1 (47%)
Jul 1-31	2	2	0 (12%)
Aug 1-31	2	2	0 (9%)
Sep 1-30	2	2	0 (13%)
Oct 1-31	2	2	1 (26%)
Nov 1-10	1	2	1 (91%)
Nov 11-20	1	3	1 (119%)
Nov 21-30	1	2	1 (92%)
Dec 1-31	1	2	0 (19%)
Jan 1-31	2	2	0 (1%)
Feb 1-28	2	3	0 (15%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 36: Monthly Averages of Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,711	1,949	238 (14%)
Mar 16-31	1,782	2,308	525 (29%)
Apr 1-15	1,650	2,182	533 (32%)
Apr 16-30	1,675	2,075	399 (24%)
May 1-31	1,635	1,555	-80 (-5%)
Jun 1-30	1,245	1,211	-35 (-3%)
Jul 1-31	1,081	1,111	30 (3%)
Aug 1-31	246	318	72 (29%)
Sep 1-30	245	336	91 (37%)
Oct 1-31	234	362	128 (54%)
Nov 1-10	199	366	168 (84%)
Nov 11-20	180	444	263 (146%)
Nov 21-30	302	508	206 (68%)
Dec 1-31	690	599	-91 (-13%)
Jan 1-31	1,406	1,279	-128 (-9%)
Feb 1-28	1,818	1,613	-204 (-11%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 37: Monthly Averages of Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	4,593	4,180	-413 (-9%)
Mar 16-31	4,797	4,868	70 (1%)
Apr 1-15	4,686	4,693	6 (0%)
Apr 16-30	4,821	4,681	-139 (-3%)
May 1-31	4,503	3,950	-553 (-12%)
Jun 1-30	3,396	3,157	-239 (-7%)
Jul 1-31	2,899	2,840	-59 (-2%)
Aug 1-31	336	406	70 (21%)
Sep 1-30	349	435	86 (25%)
Oct 1-31	405	521	116 (29%)
Nov 1-10	420	502	83 (20%)
Nov 11-20	389	650	262 (67%)
Nov 21-30	711	865	155 (22%)
Dec 1-31	1,556	1,370	-186 (-12%)
Jan 1-31	1,582	1,493	-89 (-6%)
Feb 1-28	2,237	1,994	-243 (-11%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 38: Monthly Averages of Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	563	1,084	522 (93%)
Mar 16-31	536	1,155	619 (116%)
Apr 1-15	219	1,346	1,127 (513%)
Apr 16-30	100	1,233	1,133 (1,130%)
May 1-31	483	547	65 (13%)
Jun 1-30	314	313	-1 (0%)
Jul 1-31	207	280	73 (35%)
Aug 1-31	234	303	69 (29%)
Sep 1-30	229	314	85 (37%)
Oct 1-31	199	331	131 (66%)
Nov 1-10	135	357	222 (164%)
Nov 11-20	108	374	266 (247%)
Nov 21-30	125	368	242 (194%)
Dec 1-31	612	341	-272 (-44%)
Jan 1-31	3,640	3,213	-426 (-12%)
Feb 1-28	3,202	2,987	-215 (-7%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 39: Monthly Averages of Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	155	740	585 (378%)
Mar 16-31	195	1,041	847 (435%)
Apr 1-15	98	918	819 (833%)
Apr 16-30	104	811	707 (681%)
May 1-31	77	337	260 (337%)
Jun 1-30	101	202	101 (100%)
Jul 1-31	151	226	75 (50%)
Aug 1-31	176	255	79 (45%)
Sep 1-30	177	277	101 (57%)
Oct 1-31	125	263	138 (110%)
Nov 1-10	70	283	212 (302%)
Nov 11-20	67	331	264 (391%)
Nov 21-30	83	314	231 (278%)
Dec 1-31	105	151	45 (43%)
Jan 1-31	193	168	-25 (-13%)
Feb 1-28	1,154	926	-228 (-20%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 40: Monthly Averages of Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	116	695	579 (499%)
Mar 16-31	110	883	774 (706%)
Apr 1-15	83	519	436 (527%)
Apr 16-30	104	261	157 (152%)
May 1-31	67	190	123 (183%)
Jun 1-30	109	206	97 (89%)
Jul 1-31	164	238	74 (45%)
Aug 1-31	198	269	71 (36%)
Sep 1-30	175	269	94 (54%)
Oct 1-31	121	252	130 (107%)
Nov 1-10	50	257	207 (418%)
Nov 11-20	41	303	262 (647%)
Nov 21-30	53	282	229 (431%)
Dec 1-31	68	112	44 (64%)
Jan 1-31	348	334	-14 (-4%)
Feb 1-28	547	442	-104 (-19%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 41: Monthly Averages of Simulated San Joaquin River Above Merced Confluence (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2,663	2,877	213 (8%)
Mar 16-31	2,732	3,253	520 (19%)
Apr 1-15	2,336	2,871	536 (23%)
Apr 16-30	2,227	2,637	410 (18%)
May 1-31	2,098	2,026	-72 (-3%)
Jun 1-30	1,631	1,599	-33 (-2%)
Jul 1-31	1,480	1,504	24 (2%)
Aug 1-31	588	660	72 (12%)
Sep 1-30	548	639	90 (16%)
Oct 1-31	553	681	128 (23%)
Nov 1-10	545	702	157 (29%)
Nov 11-20	496	756	260 (52%)
Nov 21-30	624	838	214 (34%)
Dec 1-31	1,089	1,007	-82 (-8%)
Jan 1-31	2,042	1,917	-126 (-6%)
Feb 1-28	2,692	2,487	-206 (-8%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 42: Monthly Averages of Simulated San Joaquin River Above Merced Confluence (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	6,223	5,763	-459 (-7%)
Mar 16-31	6,529	6,596	67 (1%)
Apr 1-15	5,958	5,970	12 (0%)
Apr 16-30	5,762	5,631	-130 (-2%)
May 1-31	5,334	4,784	-550 (-10%)
Jun 1-30	4,030	3,798	-232 (-6%)
Jul 1-31	3,579	3,502	-77 (-2%)
Aug 1-31	814	884	70 (9%)
Sep 1-30	827	913	86 (10%)
Oct 1-31	887	1,007	120 (14%)
Nov 1-10	900	960	60 (7%)
Nov 11-20	796	1,054	258 (32%)
Nov 21-30	1,173	1,339	166 (14%)
Dec 1-31	2,174	1,994	-179 (-8%)
Jan 1-31	2,385	2,294	-90 (-4%)
Feb 1-28	3,638	3,394	-244 (-7%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 43: Monthly Averages of Simulated San Joaquin River Above Merced Confluence (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,423	1,939	515 (36%)
Mar 16-31	1,228	1,829	601 (49%)
Apr 1-15	694	1,805	1,110 (160%)
Apr 16-30	501	1,653	1,151 (230%)
May 1-31	823	910	86 (10%)
Jun 1-30	644	640	-4 (-1%)
Jul 1-31	516	590	74 (14%)
Aug 1-31	567	635	68 (12%)
Sep 1-30	498	582	84 (17%)
Oct 1-31	569	698	130 (23%)
Nov 1-10	554	771	217 (39%)
Nov 11-20	458	721	264 (58%)
Nov 21-30	463	712	248 (54%)
Dec 1-31	1,012	764	-248 (-25%)
Jan 1-31	4,490	4,069	-421 (-9%)
Feb 1-28	4,206	3,993	-213 (-5%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 44: Monthly Averages of Simulated San Joaquin River Above Merced Confluence (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	686	1,254	568 (83%)
Mar 16-31	725	1,567	842 (116%)
Apr 1-15	477	1,299	822 (172%)
Apr 16-30	474	1,192	718 (151%)
May 1-31	348	619	271 (78%)
Jun 1-30	339	441	101 (30%)
Jul 1-31	399	475	76 (19%)
Aug 1-31	431	509	79 (18%)
Sep 1-30	380	480	100 (26%)
Oct 1-31	338	475	137 (40%)
Nov 1-10	326	534	208 (64%)
Nov 11-20	379	640	261 (69%)
Nov 21-30	352	590	238 (68%)
Dec 1-31	423	473	50 (12%)
Jan 1-31	576	555	-22 (-4%)
Feb 1-28	1,639	1,409	-230 (-14%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 45: Monthly Averages of Simulated San Joaquin River Above Merced Confluence (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	581	1,143	561 (97%)
Mar 16-31	571	1,349	778 (136%)
Apr 1-15	411	866	455 (111%)
Apr 16-30	400	564	164 (41%)
May 1-31	292	416	124 (42%)
Jun 1-30	331	428	98 (29%)
Jul 1-31	383	457	75 (20%)
Aug 1-31	436	506	71 (16%)
Sep 1-30	354	447	93 (26%)
Oct 1-31	264	393	129 (49%)
Nov 1-10	232	434	202 (87%)
Nov 11-20	189	449	259 (137%)
Nov 21-30	202	438	236 (117%)
Dec 1-31	215	263	48 (22%)
Jan 1-31	807	795	-12 (-2%)
Feb 1-28	916	806	-109 (-12%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 46: Monthly Averages of Simulated Chowchilla Bypass Diversion Flow (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	738	632	-106 (-14%)
Mar 16-31	726	718	-7 (-1%)
Apr 1-15	815	796	-19 (-2%)
Apr 16-30	881	803	-79 (-9%)
May 1-31	898	640	-258 (-29%)
Jun 1-30	774	655	-119 (-15%)
Jul 1-31	552	545	-7 (-1%)
Aug 1-31	1	1	1 (103%)
Sep 1-30	0	1	1 (365%)
Oct 1-31	8	3	-5 (-65%)
Nov 1-10	1	9	8 (551%)
Nov 11-20	9	18	9 (101%)
Nov 21-30	44	22	-21 (-49%)
Dec 1-31	288	159	-129 (-45%)
Jan 1-31	642	535	-106 (-17%)
Feb 1-28	818	544	-274 (-33%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 47: Monthly Averages of Simulated Chowchilla Bypass Diversion Flow (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	2,155	1,853	-303 (-14%)
Mar 16-31	2,132	2,072	-60 (-3%)
Apr 1-15	2,444	2,278	-166 (-7%)
Apr 16-30	2,644	2,332	-312 (-12%)
May 1-31	2,564	1,915	-649 (-25%)
Jun 1-30	2,303	1,954	-349 (-15%)
Jul 1-31	1,655	1,633	-22 (-1%)
Aug 1-31	2	2	1 (38%)
Sep 1-30	0	1	1 (287%)
Oct 1-31	24	7	-17 (-72%)
Nov 1-10	4	24	20 (514%)
Nov 11-20	26	49	24 (92%)
Nov 21-30	126	62	-64 (-51%)
Dec 1-31	670	455	-215 (-32%)
Jan 1-31	498	424	-74 (-15%)
Feb 1-28	964	600	-364 (-38%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 48: Monthly Averages of Simulated Chowchilla Bypass Diversion Flow (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	92	62	-30 (-32%)
Mar 16-31	71	122	51 (72%)
Apr 1-15	1	169	168 (31,642%)
Apr 16-30	1	117	117 (22,595%)
May 1-31	207	6	-202 (-97%)
Jun 1-30	29	13	-16 (-54%)
Jul 1-31	0	1	1 (536%)
Aug 1-31	0	1	1 (547%)
Sep 1-30	0	1	1 (597%)
Oct 1-31	0	1	1 (622%)
Nov 1-10	0	1	1 (858%)
Nov 11-20	0	1	1 (1,908%)
Nov 21-30	0	1	1 (553%)
Dec 1-31	317	3	-314 (-99%)
Jan 1-31	2,276	1,885	-391 (-17%)
Feb 1-28	1,441	1,159	-281 (-20%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 49: Monthly Averages of Simulated Chowchilla Bypass Diversion Flow (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	0	3	2 (681%)
Mar 16-31	1	8	7 (1,389%)
Apr 1-15	0	3	3 (1,384%)
Apr 16-30	0	3	2 (2,871%)
May 1-31	0	1	1 (704%)
Jun 1-30	0	1	1 (678%)
Jul 1-31	0	1	1 (574%)
Aug 1-31	0	1	1 (313%)
Sep 1-30	0	1	1 (323%)
Oct 1-31	0	1	1 (729%)
Nov 1-10	0	1	1 (2,367%)
Nov 11-20	0	1	1 (2,144%)
Nov 21-30	0	1	1 (735%)
Dec 1-31	0	0	0 (179%)
Jan 1-31	2	0	-1 (-72%)
Feb 1-28	669	393	-276 (-41%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 50: Monthly Averages of Simulated Chowchilla Bypass Diversion Flow (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	0	3	2 (1,503%)
Mar 16-31	0	3	3 (952%)
Apr 1-15	0	2	2 (1,815%)
Apr 16-30	0	1	1 (1,227%)
May 1-31	0	1	1 (531%)
Jun 1-30	0	1	1 (1,450%)
Jul 1-31	0	1	1 (655%)
Aug 1-31	0	1	1 (603%)
Sep 1-30	0	1	1 (431%)
Oct 1-31	0	1	1 (2,260%)
Nov 1-10	0	1	1 (1,870%)
Nov 11-20	0	1	1 (1,620%)
Nov 21-30	0	1	1 (972%)
Dec 1-31	0	0	0 (213%)
Jan 1-31	6	6	0 (0%)
Feb 1-28	137	18	-119 (-87%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 51: Monthly Averages of Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,412	1,688	276 (20%)
Mar 16-31	1,466	1,998	533 (36%)
Apr 1-15	1,475	2,002	527 (36%)
Apr 16-30	1,603	1,982	379 (24%)
May 1-31	1,548	1,454	-94 (-6%)
Jun 1-30	1,189	1,148	-41 (-3%)
Jul 1-31	955	997	42 (4%)
Aug 1-31	152	225	73 (48%)
Sep 1-30	146	238	92 (63%)
Oct 1-31	139	265	126 (91%)
Nov 1-10	111	296	185 (167%)
Nov 11-20	130	396	266 (205%)
Nov 21-30	252	441	190 (75%)
Dec 1-31	611	506	-105 (-17%)
Jan 1-31	1,184	1,051	-133 (-11%)
Feb 1-28	1,506	1,303	-203 (-13%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 52: Monthly Averages of Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	3,995	3,661	-334 (-8%)
Mar 16-31	4,120	4,195	75 (2%)
Apr 1-15	4,345	4,343	-2 (0%)
Apr 16-30	4,773	4,617	-156 (-3%)
May 1-31	4,358	3,800	-559 (-13%)
Jun 1-30	3,334	3,072	-262 (-8%)
Jul 1-31	2,627	2,606	-20 (-1%)
Aug 1-31	171	241	70 (41%)
Sep 1-30	166	253	87 (53%)
Oct 1-31	237	345	108 (46%)
Nov 1-10	275	396	120 (44%)
Nov 11-20	338	602	264 (78%)
Nov 21-30	673	804	132 (20%)
Dec 1-31	1,467	1,270	-197 (-13%)
Jan 1-31	1,381	1,293	-88 (-6%)
Feb 1-28	1,710	1,470	-240 (-14%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 53: Monthly Averages of Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	325	849	523 (161%)
Mar 16-31	346	1,000	653 (189%)
Apr 1-15	81	1,232	1,151 (1,422%)
Apr 16-30	3	1,100	1,097 (38,417%)
May 1-31	401	431	30 (8%)
Jun 1-30	237	243	6 (3%)
Jul 1-31	134	206	72 (54%)
Aug 1-31	155	224	69 (45%)
Sep 1-30	152	238	86 (57%)
Oct 1-31	93	228	134 (144%)
Nov 1-10	24	252	227 (940%)
Nov 11-20	23	292	269 (1,184%)
Nov 21-30	35	266	231 (654%)
Dec 1-31	478	164	-314 (-66%)
Jan 1-31	3,233	2,789	-444 (-14%)
Feb 1-28	2,810	2,593	-217 (-8%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 54: Monthly Averages of Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	33	644	611 (1,856%)
Mar 16-31	55	907	852 (1,545%)
Apr 1-15	15	829	814 (5,511%)
Apr 16-30	14	700	687 (5,073%)
May 1-31	19	261	242 (1,301%)
Jun 1-30	56	155	99 (177%)
Jul 1-31	104	177	74 (71%)
Aug 1-31	126	206	80 (63%)
Sep 1-30	122	224	102 (83%)
Oct 1-31	78	218	140 (180%)
Nov 1-10	22	241	218 (980%)
Nov 11-20	16	284	267 (1,620%)
Nov 21-30	23	241	218 (939%)
Dec 1-31	37	75	39 (105%)
Jan 1-31	82	52	-31 (-37%)
Feb 1-28	1,027	795	-232 (-23%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 55: Monthly Averages of Simulated Eastside Bypass Flow After Sand Slough  
Diversion (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	18	622	604 (3,335%)
Mar 16-31	31	793	762 (2,441%)
Apr 1-15	31	436	405 (1,317%)
Apr 16-30	37	185	148 (404%)
May 1-31	34	155	121 (360%)
Jun 1-30	69	165	96 (139%)
Jul 1-31	124	196	73 (59%)
Aug 1-31	151	223	72 (47%)
Sep 1-30	136	231	95 (70%)
Oct 1-31	90	222	132 (147%)
Nov 1-10	24	239	214 (882%)
Nov 11-20	20	284	265 (1,356%)
Nov 21-30	26	242	216 (830%)
Dec 1-31	37	74	37 (100%)
Jan 1-31	141	124	-17 (-12%)
Feb 1-28	442	347	-95 (-22%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 56: Monthly Averages of Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,201	1,470	268 (22%)
Mar 16-31	1,248	1,777	529 (42%)
Apr 1-15	1,233	1,777	544 (44%)
Apr 16-30	1,313	1,737	424 (32%)
May 1-31	1,306	1,296	-10 (-1%)
Jun 1-30	1,004	1,005	1 (0%)
Jul 1-31	841	885	44 (5%)
Aug 1-31	150	222	72 (48%)
Sep 1-30	145	236	91 (62%)
Oct 1-31	135	262	127 (94%)
Nov 1-10	122	289	167 (137%)
Nov 11-20	118	380	262 (221%)
Nov 21-30	227	433	207 (91%)
Dec 1-31	503	435	-68 (-13%)
Jan 1-31	940	845	-95 (-10%)
Feb 1-28	1,245	1,089	-156 (-13%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 57: Monthly Averages of Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	3,387	3,069	-318 (-9%)
Mar 16-31	3,454	3,536	82 (2%)
Apr 1-15	3,611	3,659	48 (1%)
Apr 16-30	3,904	3,845	-59 (-2%)
May 1-31	3,663	3,301	-362 (-10%)
Jun 1-30	2,781	2,649	-132 (-5%)
Jul 1-31	2,286	2,270	-16 (-1%)
Aug 1-31	171	241	70 (41%)
Sep 1-30	165	251	86 (52%)
Oct 1-31	224	340	116 (52%)
Nov 1-10	300	382	82 (27%)
Nov 11-20	310	571	261 (84%)
Nov 21-30	601	760	159 (27%)
Dec 1-31	1,185	1,057	-128 (-11%)
Jan 1-31	1,147	1,083	-64 (-6%)
Feb 1-28	1,381	1,219	-162 (-12%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 58: Monthly Averages of Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	291	811	520 (179%)
Mar 16-31	372	996	624 (168%)
Apr 1-15	94	1,217	1,123 (1,198%)
Apr 16-30	3	1,132	1,129 (35,930%)
May 1-31	355	454	99 (28%)
Jun 1-30	240	238	-1 (-1%)
Jul 1-31	132	205	73 (55%)
Aug 1-31	152	220	68 (45%)
Sep 1-30	152	237	85 (56%)
Oct 1-31	95	226	131 (138%)
Nov 1-10	28	248	221 (792%)
Nov 11-20	19	284	265 (1,405%)
Nov 21-30	35	276	241 (697%)
Dec 1-31	420	165	-255 (-61%)
Jan 1-31	2,459	2,147	-312 (-13%)
Feb 1-28	2,282	2,142	-140 (-6%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 59: Monthly Averages of Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	32	615	583 (1,816%)
Mar 16-31	52	896	844 (1,623%)
Apr 1-15	16	833	816 (5,035%)
Apr 16-30	13	717	705 (5,543%)
May 1-31	17	275	258 (1,531%)
Jun 1-30	53	153	100 (190%)
Jul 1-31	103	178	75 (73%)
Aug 1-31	123	202	79 (64%)
Sep 1-30	122	223	100 (82%)
Oct 1-31	79	217	138 (174%)
Nov 1-10	25	236	211 (840%)
Nov 11-20	14	277	263 (1,868%)
Nov 21-30	23	253	230 (998%)
Dec 1-31	36	81	45 (124%)
Jan 1-31	72	47	-25 (-35%)
Feb 1-28	876	669	-207 (-24%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 60: Monthly Averages of Simulated Eastside Bypass Flow Before San Joaquin River Confluence (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	18	594	576 (3,254%)
Mar 16-31	29	801	771 (2,635%)
Apr 1-15	27	462	434 (1,584%)
Apr 16-30	38	194	156 (411%)
May 1-31	31	153	122 (387%)
Jun 1-30	66	162	96 (147%)
Jul 1-31	123	197	74 (60%)
Aug 1-31	148	219	71 (48%)
Sep 1-30	136	230	94 (69%)
Oct 1-31	92	221	130 (142%)
Nov 1-10	28	234	206 (733%)
Nov 11-20	16	277	261 (1,592%)
Nov 21-30	26	254	228 (877%)
Dec 1-31	37	80	43 (118%)
Jan 1-31	133	119	-14 (-11%)
Feb 1-28	426	321	-105 (-25%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 61: Monthly Averages of Simulated Sand Slough Bypass Flow (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	691	1,095	403 (58%)
Mar 16-31	724	1,275	551 (76%)
Apr 1-15	672	1,219	547 (81%)
Apr 16-30	725	1,166	442 (61%)
May 1-31	640	801	161 (25%)
Jun 1-30	450	525	74 (17%)
Jul 1-31	326	388	62 (19%)
Aug 1-31	150	222	72 (48%)
Sep 1-30	145	237	92 (63%)
Oct 1-31	133	262	129 (98%)
Nov 1-10	101	290	189 (186%)
Nov 11-20	130	382	253 (195%)
Nov 21-30	218	418	200 (92%)
Dec 1-31	353	363	9 (3%)
Jan 1-31	555	530	-25 (-5%)
Feb 1-28	692	750	58 (8%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 62: Monthly Averages of Simulated Sand Slough Bypass Flow (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1,867	1,912	46 (2%)
Mar 16-31	1,963	2,111	148 (8%)
Apr 1-15	1,936	2,090	154 (8%)
Apr 16-30	2,140	2,269	130 (6%)
May 1-31	1,762	1,848	86 (5%)
Jun 1-30	1,136	1,211	75 (7%)
Jul 1-31	739	781	42 (6%)
Aug 1-31	164	234	70 (43%)
Sep 1-30	165	252	87 (52%)
Oct 1-31	221	339	118 (54%)
Nov 1-10	248	379	131 (53%)
Nov 11-20	336	564	228 (68%)
Nov 21-30	576	742	166 (29%)
Dec 1-31	848	861	13 (2%)
Jan 1-31	891	884	-7 (-1%)
Feb 1-28	760	873	113 (15%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 63: Monthly Averages of Simulated Sand Slough Bypass Flow (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	275	799	524 (191%)
Mar 16-31	236	872	636 (269%)
Apr 1-15	79	1,083	1,004 (1,272%)
Apr 16-30	2	950	948 (41,713%)
May 1-31	195	422	227 (116%)
Jun 1-30	206	230	24 (12%)
Jul 1-31	134	205	71 (53%)
Aug 1-31	155	223	68 (44%)
Sep 1-30	151	237	85 (56%)
Oct 1-31	93	227	134 (144%)
Nov 1-10	24	251	227 (961%)
Nov 11-20	23	291	268 (1,166%)
Nov 21-30	35	264	228 (652%)
Dec 1-31	236	162	-73 (-31%)
Jan 1-31	1,004	949	-55 (-5%)
Feb 1-28	1,276	1,339	64 (5%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 64: Monthly Averages of Simulated Sand Slough Bypass Flow (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	33	644	612 (1,879%)
Mar 16-31	55	900	845 (1,542%)
Apr 1-15	14	825	811 (5,655%)
Apr 16-30	13	696	682 (5,074%)
May 1-31	19	258	239 (1,288%)
Jun 1-30	56	155	98 (174%)
Jul 1-31	103	177	73 (71%)
Aug 1-31	126	205	79 (63%)
Sep 1-30	122	223	101 (83%)
Oct 1-31	78	218	140 (180%)
Nov 1-10	22	240	218 (996%)
Nov 11-20	17	283	266 (1,600%)
Nov 21-30	23	238	215 (937%)
Dec 1-31	37	74	38 (103%)
Jan 1-31	83	52	-31 (-37%)
Feb 1-28	421	435	14 (3%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 65: Monthly Averages of Simulated Sand Slough Bypass Flow (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	18	622	604 (3,385%)
Mar 16-31	31	789	758 (2,443%)
Apr 1-15	31	431	400 (1,295%)
Apr 16-30	36	183	147 (403%)
May 1-31	34	154	120 (358%)
Jun 1-30	70	165	95 (137%)
Jul 1-31	124	195	72 (58%)
Aug 1-31	151	222	71 (47%)
Sep 1-30	135	230	95 (70%)
Oct 1-31	90	221	132 (147%)
Nov 1-10	24	238	214 (899%)
Nov 11-20	20	283	264 (1,340%)
Nov 21-30	26	239	213 (827%)
Dec 1-31	37	73	36 (98%)
Jan 1-31	136	119	-17 (-13%)
Feb 1-28	321	339	18 (6%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 66: Monthly Averages of Simulated Mariposa Bypass Flow (cfs) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	211	183	-27 (-13%)
Mar 16-31	231	227	-4 (-2%)
Apr 1-15	239	225	-13 (-6%)
Apr 16-30	286	258	-27 (-9%)
May 1-31	253	182	-71 (-28%)
Jun 1-30	171	134	-37 (-22%)
Jul 1-31	166	154	-11 (-7%)
Aug 1-31	1	1	0 (10%)
Sep 1-30	1	1	0 (12%)
Oct 1-31	1	1	0 (17%)
Nov 1-10	1	1	0 (29%)
Nov 11-20	1	2	1 (46%)
Nov 21-30	9	7	-2 (-22%)
Dec 1-31	87	63	-24 (-27%)
Jan 1-31	229	196	-33 (-14%)
Feb 1-28	251	201	-50 (-20%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 67: Monthly Averages of Simulated Mariposa Bypass Flow (cfs) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	629	545	-83 (-13%)
Mar 16-31	689	676	-12 (-2%)
Apr 1-15	715	672	-43 (-6%)
Apr 16-30	855	771	-84 (-10%)
May 1-31	735	542	-193 (-26%)
Jun 1-30	512	399	-113 (-22%)
Jul 1-31	494	461	-34 (-7%)
Aug 1-31	1	1	0 (10%)
Sep 1-30	1	1	0 (11%)
Oct 1-31	1	2	0 (13%)
Nov 1-10	1	2	0 (18%)
Nov 11-20	1	2	1 (41%)
Nov 21-30	23	17	-6 (-27%)
Dec 1-31	238	179	-59 (-25%)
Jan 1-31	230	205	-25 (-11%)
Feb 1-28	318	234	-84 (-26%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 68: Monthly Averages of Simulated Mariposa Bypass Flow (cfs) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	3	2	-1 (-23%)
Mar 16-31	7	3	-4 (-62%)
Apr 1-15	1	3	2 (346%)
Apr 16-30	0	3	3 (1,458%)
May 1-31	37	2	-36 (-95%)
Jun 1-30	1	1	0 (9%)
Jul 1-31	1	1	0 (10%)
Aug 1-31	1	1	0 (9%)
Sep 1-30	1	1	0 (11%)
Oct 1-31	1	1	0 (19%)
Nov 1-10	1	1	0 (40%)
Nov 11-20	1	1	0 (51%)
Nov 21-30	1	1	0 (41%)
Dec 1-31	21	1	-20 (-94%)
Jan 1-31	730	612	-118 (-16%)
Feb 1-28	569	491	-78 (-14%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 69: Monthly Averages of Simulated Mariposa Bypass Flow (cfs) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	2	1 (132%)
Mar 16-31	1	2	1 (131%)
Apr 1-15	1	2	2 (218%)
Apr 16-30	1	2	1 (218%)
May 1-31	1	1	1 (111%)
Jun 1-30	1	1	0 (28%)
Jul 1-31	1	1	0 (10%)
Aug 1-31	1	1	0 (11%)
Sep 1-30	1	1	0 (14%)
Oct 1-31	1	1	0 (20%)
Nov 1-10	1	1	0 (37%)
Nov 11-20	1	1	0 (51%)
Nov 21-30	1	1	0 (37%)
Dec 1-31	1	1	0 (7%)
Jan 1-31	1	1	0 (-3%)
Feb 1-28	103	79	-24 (-24%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 70: Monthly Averages of Simulated Mariposa Bypass Flow (cfs) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	1	2	1 (156%)
Mar 16-31	1	2	1 (122%)
Apr 1-15	1	2	1 (111%)
Apr 16-30	1	1	0 (44%)
May 1-31	1	1	1 (71%)
Jun 1-30	1	1	0 (28%)
Jul 1-31	1	1	0 (10%)
Aug 1-31	1	1	0 (9%)
Sep 1-30	1	1	0 (13%)
Oct 1-31	1	1	0 (19%)
Nov 1-10	1	1	0 (34%)
Nov 11-20	1	1	0 (46%)
Nov 21-30	1	1	0 (35%)
Dec 1-31	1	1	0 (6%)
Jan 1-31	1	1	0 (-1%)
Feb 1-28	2	2	0 (-9%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 71: Monthly Averages of Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	46	46	0 (-1%)
Mar 16-31	46	46	0 (0%)
Apr 1-15	46	46	0 (0%)
Apr 16-30	47	47	0 (1%)
May 1-31	48	48	0 (1%)
Jun 1-30	49	50	1 (1%)
Jul 1-31	51	51	1 (2%)
Aug 1-31	51	53	1 (2%)
Sep 1-30	52	54	2 (4%)
Oct 1-31	53	57	4 (7%)
Nov 1-10	54	58	4 (8%)
Nov 11-20	54	58	4 (7%)
Nov 21-30	55	58	3 (5%)
Dec 1-31	53	54	1 (1%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	46	46	0 (-1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 72: Monthly Averages of Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	45	45	0 (-1%)
Mar 16-31	45	45	0 (-1%)
Apr 1-15	46	46	0 (0%)
Apr 16-30	47	47	0 (-1%)
May 1-31	48	48	0 (-1%)
Jun 1-30	50	50	0 (0%)
Jul 1-31	53	53	0 (0%)
Aug 1-31	53	54	0 (0%)
Sep 1-30	54	54	1 (1%)
Oct 1-31	54	56	1 (2%)
Nov 1-10	55	57	2 (4%)
Nov 11-20	55	57	3 (5%)
Nov 21-30	55	58	2 (4%)
Dec 1-31	54	55	1 (1%)
Jan 1-31	48	48	0 (-1%)
Feb 1-28	46	46	-1 (-1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 73: Monthly Averages of Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	46	46	0 (0%)
Mar 16-31	46	46	0 (0%)
Apr 1-15	47	47	0 (1%)
Apr 16-30	47	48	1 (2%)
May 1-31	48	49	1 (2%)
Jun 1-30	49	50	1 (2%)
Jul 1-31	50	51	1 (2%)
Aug 1-31	51	53	1 (3%)
Sep 1-30	52	54	2 (4%)
Oct 1-31	53	57	4 (7%)
Nov 1-10	54	59	5 (9%)
Nov 11-20	54	59	4 (7%)
Nov 21-30	56	58	2 (4%)
Dec 1-31	54	54	1 (1%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	46	46	0 (-1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 74: Monthly Averages of Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	46	46	0 (-1%)
Mar 16-31	46	46	0 (0%)
Apr 1-15	47	47	0 (0%)
Apr 16-30	47	48	1 (1%)
May 1-31	48	49	1 (2%)
Jun 1-30	49	50	1 (3%)
Jul 1-31	50	51	2 (3%)
Aug 1-31	50	52	2 (4%)
Sep 1-30	51	54	3 (6%)
Oct 1-31	53	58	5 (9%)
Nov 1-10	54	59	5 (10%)
Nov 11-20	55	59	4 (8%)
Nov 21-30	55	58	3 (5%)
Dec 1-31	53	54	1 (2%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	46	46	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 75: Monthly Averages of Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	46	46	0 (-1%)
Mar 16-31	47	46	0 (0%)
Apr 1-15	47	47	0 (0%)
Apr 16-30	47	47	0 (1%)
May 1-31	48	48	0 (1%)
Jun 1-30	48	49	0 (1%)
Jul 1-31	49	50	1 (2%)
Aug 1-31	50	51	2 (3%)
Sep 1-30	50	53	3 (6%)
Oct 1-31	52	57	6 (11%)
Nov 1-10	53	59	6 (12%)
Nov 11-20	54	59	5 (9%)
Nov 21-30	54	57	3 (5%)
Dec 1-31	52	53	1 (2%)
Jan 1-31	47	47	0 (1%)
Feb 1-28	45	45	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 76: Monthly Averages of Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	57	52	-5 (-8%)
Mar 16-31	60	53	-7 (-11%)
Apr 1-15	63	55	-8 (-12%)
Apr 16-30	64	58	-7 (-11%)
May 1-31	68	64	-4 (-6%)
Jun 1-30	73	69	-3 (-4%)
Jul 1-31	78	75	-3 (-4%)
Aug 1-31	80	76	-4 (-5%)
Sep 1-30	76	72	-5 (-6%)
Oct 1-31	69	65	-4 (-6%)
Nov 1-10	62	60	-2 (-4%)
Nov 11-20	58	58	-1 (-1%)
Nov 21-30	54	55	1 (2%)
Dec 1-31	49	50	1 (2%)
Jan 1-31	47	48	0 (0%)
Feb 1-28	52	51	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 77: Monthly Averages of Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	51	51	-1 (-1%)
Mar 16-31	54	52	-2 (-3%)
Apr 1-15	54	52	-1 (-3%)
Apr 16-30	55	54	-1 (-3%)
May 1-31	57	56	0 (-1%)
Jun 1-30	61	60	-1 (-2%)
Jul 1-31	70	68	-2 (-3%)
Aug 1-31	80	76	-4 (-5%)
Sep 1-30	76	72	-4 (-6%)
Oct 1-31	69	64	-5 (-7%)
Nov 1-10	63	59	-4 (-6%)
Nov 11-20	58	57	-1 (-2%)
Nov 21-30	55	55	0 (0%)
Dec 1-31	50	51	1 (2%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	52	51	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 78: Monthly Averages of Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	53	-6 (-10%)
Mar 16-31	61	53	-8 (-13%)
Apr 1-15	64	54	-10 (-16%)
Apr 16-30	67	56	-11 (-16%)
May 1-31	70	66	-4 (-6%)
Jun 1-30	77	74	-3 (-4%)
Jul 1-31	83	79	-4 (-5%)
Aug 1-31	81	77	-4 (-5%)
Sep 1-30	78	73	-5 (-6%)
Oct 1-31	69	65	-4 (-6%)
Nov 1-10	61	59	-1 (-2%)
Nov 11-20	57	58	0 (0%)
Nov 21-30	53	55	2 (3%)
Dec 1-31	50	51	1 (2%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	51	51	-1 (-1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 79: Monthly Averages of Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	52	-7 (-12%)
Mar 16-31	62	53	-8 (-14%)
Apr 1-15	68	56	-12 (-17%)
Apr 16-30	69	58	-11 (-16%)
May 1-31	74	67	-7 (-9%)
Jun 1-30	79	74	-5 (-6%)
Jul 1-31	82	78	-4 (-5%)
Aug 1-31	80	76	-4 (-5%)
Sep 1-30	76	72	-4 (-6%)
Oct 1-31	69	65	-4 (-6%)
Nov 1-10	62	60	-2 (-3%)
Nov 11-20	59	59	0 (0%)
Nov 21-30	55	56	1 (2%)
Dec 1-31	49	50	1 (2%)
Jan 1-31	47	48	0 (0%)
Feb 1-28	51	50	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 80: Monthly Averages of Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	53	-8 (-13%)
Mar 16-31	65	54	-11 (-16%)
Apr 1-15	69	60	-10 (-14%)
Apr 16-30	71	65	-6 (-9%)
May 1-31	74	69	-5 (-7%)
Jun 1-30	78	74	-4 (-6%)
Jul 1-31	82	77	-4 (-5%)
Aug 1-31	81	77	-4 (-5%)
Sep 1-30	76	72	-5 (-6%)
Oct 1-31	70	66	-5 (-7%)
Nov 1-10	62	60	-2 (-3%)
Nov 11-20	58	58	0 (0%)
Nov 21-30	53	54	2 (3%)
Dec 1-31	48	49	1 (3%)
Jan 1-31	48	48	0 (1%)
Feb 1-28	53	52	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 81: Monthly Averages of Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	60	55	-5 (-8%)
Mar 16-31	63	57	-6 (-10%)
Apr 1-15	67	60	-7 (-10%)
Apr 16-30	70	64	-6 (-9%)
May 1-31	73	70	-3 (-4%)
Jun 1-30	76	75	-2 (-2%)
Jul 1-31	81	80	-2 (-2%)
Aug 1-31	83	81	-2 (-2%)
Sep 1-30	79	76	-3 (-4%)
Oct 1-31	71	68	-4 (-5%)
Nov 1-10	63	61	-3 (-4%)
Nov 11-20	59	58	-1 (-2%)
Nov 21-30	55	55	0 (0%)
Dec 1-31	49	50	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	53	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 82: Monthly Averages of Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	56	55	0 (-1%)
Mar 16-31	60	58	-2 (-3%)
Apr 1-15	62	61	-1 (-2%)
Apr 16-30	66	65	-1 (-2%)
May 1-31	68	67	-1 (-1%)
Jun 1-30	68	67	-1 (-1%)
Jul 1-31	75	73	-2 (-2%)
Aug 1-31	83	81	-2 (-2%)
Sep 1-30	79	76	-3 (-3%)
Oct 1-31	71	67	-3 (-5%)
Nov 1-10	64	61	-3 (-5%)
Nov 11-20	59	57	-2 (-3%)
Nov 21-30	56	55	-1 (-1%)
Dec 1-31	50	50	0 (0%)
Jan 1-31	49	49	0 (0%)
Feb 1-28	55	54	-1 (-3%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 83: Monthly Averages of Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	55	-6 (-9%)
Mar 16-31	64	56	-8 (-12%)
Apr 1-15	67	57	-10 (-15%)
Apr 16-30	70	59	-10 (-15%)
May 1-31	74	70	-3 (-4%)
Jun 1-30	80	79	-1 (-1%)
Jul 1-31	85	83	-2 (-2%)
Aug 1-31	84	82	-2 (-2%)
Sep 1-30	80	77	-3 (-4%)
Oct 1-31	71	67	-3 (-5%)
Nov 1-10	62	60	-2 (-4%)
Nov 11-20	59	58	-1 (-2%)
Nov 21-30	54	54	1 (1%)
Dec 1-31	50	51	0 (1%)
Jan 1-31	48	48	0 (1%)
Feb 1-28	55	54	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 84: Monthly Averages of Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	54	-7 (-11%)
Mar 16-31	64	56	-8 (-13%)
Apr 1-15	70	60	-11 (-15%)
Apr 16-30	71	62	-10 (-14%)
May 1-31	76	71	-5 (-7%)
Jun 1-30	81	79	-2 (-3%)
Jul 1-31	85	83	-2 (-2%)
Aug 1-31	83	81	-2 (-3%)
Sep 1-30	79	76	-3 (-4%)
Oct 1-31	71	68	-3 (-5%)
Nov 1-10	64	61	-3 (-4%)
Nov 11-20	60	59	-1 (-2%)
Nov 21-30	56	56	0 (0%)
Dec 1-31	49	49	0 (1%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	53	52	-1 (-2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 85: Monthly Averages of Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	64	56	-8 (-13%)
Mar 16-31	68	58	-10 (-15%)
Apr 1-15	72	64	-8 (-11%)
Apr 16-30	73	69	-5 (-6%)
May 1-31	77	74	-3 (-4%)
Jun 1-30	80	78	-2 (-3%)
Jul 1-31	84	82	-2 (-2%)
Aug 1-31	83	81	-2 (-3%)
Sep 1-30	79	76	-3 (-4%)
Oct 1-31	73	69	-4 (-6%)
Nov 1-10	63	61	-3 (-4%)
Nov 11-20	58	57	-1 (-2%)
Nov 21-30	53	54	1 (1%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	49	49	0 (0%)
Feb 1-28	55	54	-1 (-3%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 86: Monthly Averages of Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	57	-1 (-2%)
Mar 16-31	62	59	-3 (-6%)
Apr 1-15	65	62	-3 (-4%)
Apr 16-30	66	64	-2 (-3%)
May 1-31	69	69	0 (0%)
Jun 1-30	74	74	0 (1%)
Jul 1-31	78	79	0 (0%)
Aug 1-31	79	80	1 (1%)
Sep 1-30	75	76	1 (1%)
Oct 1-31	67	67	0 (0%)
Nov 1-10	60	60	0 (0%)
Nov 11-20	56	57	1 (2%)
Nov 21-30	52	53	1 (2%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	53	53	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 87: Monthly Averages of Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	56	55	-1 (-2%)
Mar 16-31	59	57	-2 (-3%)
Apr 1-15	59	58	-1 (-2%)
Apr 16-30	61	60	-1 (-1%)
May 1-31	64	63	-1 (-1%)
Jun 1-30	68	68	0 (0%)
Jul 1-31	75	75	0 (0%)
Aug 1-31	79	79	0 (0%)
Sep 1-30	75	75	0 (0%)
Oct 1-31	66	67	1 (1%)
Nov 1-10	60	60	0 (0%)
Nov 11-20	55	56	1 (2%)
Nov 21-30	53	54	1 (2%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	53	53	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 88: Monthly Averages of Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	57	-1 (-2%)
Mar 16-31	63	59	-4 (-7%)
Apr 1-15	66	60	-7 (-10%)
Apr 16-30	68	62	-6 (-8%)
May 1-31	70	70	0 (0%)
Jun 1-30	77	77	1 (1%)
Jul 1-31	81	81	0 (1%)
Aug 1-31	79	80	0 (1%)
Sep 1-30	76	76	1 (1%)
Oct 1-31	66	67	1 (1%)
Nov 1-10	59	59	1 (1%)
Nov 11-20	56	57	1 (2%)
Nov 21-30	52	53	1 (2%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	52	53	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 89: Monthly Averages of Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	57	-2 (-3%)
Mar 16-31	63	59	-5 (-8%)
Apr 1-15	69	63	-6 (-8%)
Apr 16-30	69	65	-4 (-5%)
May 1-31	73	72	0 (0%)
Jun 1-30	77	78	1 (1%)
Jul 1-31	80	80	1 (1%)
Aug 1-31	78	79	1 (1%)
Sep 1-30	76	76	0 (1%)
Oct 1-31	67	68	1 (1%)
Nov 1-10	60	61	1 (1%)
Nov 11-20	57	58	1 (2%)
Nov 21-30	53	54	1 (3%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	52	53	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 90: Monthly Averages of Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	58	-3 (-4%)
Mar 16-31	65	61	-4 (-7%)
Apr 1-15	70	67	-2 (-4%)
Apr 16-30	70	70	0 (1%)
May 1-31	72	73	1 (1%)
Jun 1-30	76	77	1 (1%)
Jul 1-31	80	81	0 (1%)
Aug 1-31	80	80	0 (1%)
Sep 1-30	76	76	0 (1%)
Oct 1-31	69	69	0 (1%)
Nov 1-10	59	60	1 (1%)
Nov 11-20	55	56	1 (3%)
Nov 21-30	50	52	1 (3%)
Dec 1-31	46	46	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	54	55	1 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 91: Monthly Averages of Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	58	-1 (-1%)
Mar 16-31	63	61	-2 (-4%)
Apr 1-15	67	64	-3 (-5%)
Apr 16-30	69	66	-2 (-4%)
May 1-31	72	72	-1 (-1%)
Jun 1-30	77	77	0 (0%)
Jul 1-31	81	81	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	76	76	0 (0%)
Oct 1-31	68	69	0 (1%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	57	57	0 (1%)
Nov 21-30	52	53	1 (2%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 92: Monthly Averages of Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	56	57	1 (1%)
Mar 16-31	60	59	-1 (-1%)
Apr 1-15	61	60	-1 (-1%)
Apr 16-30	64	63	-1 (-1%)
May 1-31	67	66	0 (-1%)
Jun 1-30	72	71	-1 (-1%)
Jul 1-31	78	78	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	71	71	0 (0%)
Oct 1-31	66	67	1 (1%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	56	56	0 (1%)
Nov 21-30	52	54	2 (4%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	47	0 (0%)
Feb 1-28	53	54	1 (2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 93: Monthly Averages of Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	58	0 (0%)
Mar 16-31	63	61	-2 (-2%)
Apr 1-15	68	62	-6 (-8%)
Apr 16-30	70	65	-6 (-8%)
May 1-31	73	72	-1 (-1%)
Jun 1-30	79	79	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	81	82	0 (0%)
Sep 1-30	78	78	0 (0%)
Oct 1-31	68	68	0 (0%)
Nov 1-10	60	60	0 (0%)
Nov 11-20	57	57	0 (1%)
Nov 21-30	52	53	1 (1%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	47	48	0 (0%)
Feb 1-28	54	53	0 (-1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 94: Monthly Averages of Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	60	58	-2 (-3%)
Mar 16-31	64	60	-4 (-6%)
Apr 1-15	70	66	-5 (-7%)
Apr 16-30	71	67	-4 (-5%)
May 1-31	76	75	-1 (-2%)
Jun 1-30	80	80	0 (0%)
Jul 1-31	82	83	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	78	78	0 (0%)
Oct 1-31	69	69	0 (0%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	58	58	0 (1%)
Nov 21-30	54	54	1 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 95: Monthly Averages of Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	60	-3 (-4%)
Mar 16-31	66	62	-4 (-6%)
Apr 1-15	71	68	-3 (-4%)
Apr 16-30	72	72	-1 (-1%)
May 1-31	76	75	0 (-1%)
Jun 1-30	79	79	0 (0%)
Jul 1-31	82	83	0 (0%)
Aug 1-31	82	82	0 (0%)
Sep 1-30	77	78	0 (0%)
Oct 1-31	70	70	0 (0%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	56	57	0 (1%)
Nov 21-30	51	52	1 (1%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 96: Monthly Averages of Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	62	0 (-1%)
Mar 16-31	66	65	-1 (-1%)
Apr 1-15	69	68	-1 (-1%)
Apr 16-30	71	70	-1 (-1%)
May 1-31	76	75	0 (0%)
Jun 1-30	81	80	0 (0%)
Jul 1-31	84	84	0 (0%)
Aug 1-31	84	84	0 (0%)
Sep 1-30	79	79	0 (0%)
Oct 1-31	70	70	0 (0%)
Nov 1-10	62	62	0 (0%)
Nov 11-20	58	58	0 (0%)
Nov 21-30	53	53	0 (0%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	56	56	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 97: Monthly Averages of Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	60	60	0 (0%)
Mar 16-31	64	64	0 (0%)
Apr 1-15	65	65	0 (0%)
Apr 16-30	69	69	0 (0%)
May 1-31	73	73	0 (0%)
Jun 1-30	78	78	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	84	84	0 (0%)
Sep 1-30	78	78	0 (0%)
Oct 1-31	70	70	0 (0%)
Nov 1-10	63	63	0 (0%)
Nov 11-20	58	57	0 (0%)
Nov 21-30	54	54	0 (0%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 98: Monthly Averages of Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Restoration Normal-**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	63	62	-1 (-1%)
Mar 16-31	66	66	-1 (-1%)
Apr 1-15	69	67	-1 (-2%)
Apr 16-30	71	70	-1 (-2%)
May 1-31	76	76	0 (0%)
Jun 1-30	82	82	0 (0%)
Jul 1-31	85	85	0 (0%)
Aug 1-31	84	84	0 (0%)
Sep 1-30	80	79	0 (0%)
Oct 1-31	70	69	0 (0%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	57	57	0 (0%)
Nov 21-30	53	53	0 (0%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 99: Monthly Averages of Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Restoration Normal-**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	61	-1 (-1%)
Mar 16-31	66	65	-1 (-2%)
Apr 1-15	71	70	-1 (-2%)
Apr 16-30	72	71	-1 (-1%)
May 1-31	77	77	0 (0%)
Jun 1-30	82	82	0 (0%)
Jul 1-31	85	85	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	79	79	0 (0%)
Oct 1-31	70	70	0 (0%)
Nov 1-10	63	62	0 (0%)
Nov 11-20	59	59	0 (0%)
Nov 21-30	54	54	0 (0%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 100: Monthly Averages of Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	64	63	-1 (-1%)
Mar 16-31	68	67	-1 (-2%)
Apr 1-15	72	71	-1 (-1%)
Apr 16-30	73	73	0 (0%)
May 1-31	77	77	0 (0%)
Jun 1-30	81	81	0 (0%)
Jul 1-31	85	84	0 (0%)
Aug 1-31	84	84	0 (0%)
Sep 1-30	79	79	0 (0%)
Oct 1-31	72	72	0 (0%)
Nov 1-10	62	61	0 (0%)
Nov 11-20	57	57	0 (0%)
Nov 21-30	52	52	0 (0%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	57	57	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 101: Monthly Averages of Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	61	0 (0%)
Mar 16-31	64	64	0 (0%)
Apr 1-15	67	67	0 (0%)
Apr 16-30	69	69	0 (0%)
May 1-31	73	74	0 (0%)
Jun 1-30	79	79	0 (0%)
Jul 1-31	82	82	0 (0%)
Aug 1-31	82	82	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	68	68	0 (0%)
Nov 1-10	60	60	0 (0%)
Nov 11-20	55	55	0 (0%)
Nov 21-30	51	51	0 (0%)
Dec 1-31	46	46	0 (0%)
Jan 1-31	46	46	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 102: Monthly Averages of Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	59	0 (1%)
Mar 16-31	62	62	0 (0%)
Apr 1-15	62	62	0 (1%)
Apr 16-30	66	66	0 (0%)
May 1-31	70	71	1 (1%)
Jun 1-30	76	76	1 (1%)
Jul 1-31	80	80	0 (0%)
Aug 1-31	82	82	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	68	68	0 (0%)
Nov 1-10	61	61	0 (0%)
Nov 11-20	55	55	0 (0%)
Nov 21-30	52	52	0 (0%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	46	46	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 103: Monthly Averages of Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	62	0 (0%)
Mar 16-31	65	65	0 (0%)
Apr 1-15	67	67	0 (0%)
Apr 16-30	69	69	0 (0%)
May 1-31	74	74	0 (0%)
Jun 1-30	80	80	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	67	67	0 (0%)
Nov 1-10	58	58	0 (0%)
Nov 11-20	55	55	0 (0%)
Nov 21-30	50	50	0 (0%)
Dec 1-31	47	47	0 (-1%)
Jan 1-31	46	46	0 (0%)
Feb 1-28	53	53	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 104: Monthly Averages of Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	61	0 (0%)
Mar 16-31	65	65	0 (0%)
Apr 1-15	70	70	0 (0%)
Apr 16-30	71	71	0 (0%)
May 1-31	76	76	0 (0%)
Jun 1-30	80	80	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	68	68	0 (0%)
Nov 1-10	60	60	0 (0%)
Nov 11-20	56	56	0 (0%)
Nov 21-30	52	52	0 (0%)
Dec 1-31	46	46	0 (0%)
Jan 1-31	46	46	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 105: Monthly Averages of Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	63	0 (0%)
Mar 16-31	66	66	0 (0%)
Apr 1-15	70	70	0 (0%)
Apr 16-30	71	71	0 (0%)
May 1-31	75	75	0 (0%)
Jun 1-30	80	80	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	82	82	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	69	69	0 (0%)
Nov 1-10	59	59	0 (0%)
Nov 11-20	54	54	0 (0%)
Nov 21-30	49	49	0 (0%)
Dec 1-31	45	45	0 (0%)
Jan 1-31	46	46	0 (0%)
Feb 1-28	55	55	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 106: Monthly Averages of Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	61	-1 (-1%)
Mar 16-31	65	64	-1 (-2%)
Apr 1-15	68	67	-1 (-1%)
Apr 16-30	69	69	0 (-1%)
May 1-31	74	74	1 (1%)
Jun 1-30	79	79	0 (0%)
Jul 1-31	83	83	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	78	78	0 (0%)
Oct 1-31	69	70	0 (0%)
Nov 1-10	61	61	0 (1%)
Nov 11-20	56	57	0 (1%)
Nov 21-30	52	53	1 (1%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	55	55	1 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 107: Monthly Averages of Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	59	0 (0%)
Mar 16-31	62	62	0 (0%)
Apr 1-15	62	62	0 (0%)
Apr 16-30	66	66	0 (0%)
May 1-31	70	70	0 (1%)
Jun 1-30	75	76	0 (0%)
Jul 1-31	80	80	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	69	69	0 (0%)
Nov 1-10	62	62	0 (0%)
Nov 11-20	56	57	0 (1%)
Nov 21-30	53	54	1 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	54	55	1 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 108: Monthly Averages of Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	62	-1 (-1%)
Mar 16-31	65	65	-1 (-1%)
Apr 1-15	68	66	-2 (-3%)
Apr 16-30	70	69	-1 (-2%)
May 1-31	74	75	1 (1%)
Jun 1-30	82	82	0 (0%)
Jul 1-31	85	85	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	79	79	0 (0%)
Oct 1-31	69	69	0 (0%)
Nov 1-10	60	60	0 (1%)
Nov 11-20	57	57	0 (1%)
Nov 21-30	52	52	0 (1%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	47	47	0 (0%)
Feb 1-28	54	54	1 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 109: Monthly Averages of Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	62	61	-1 (-2%)
Mar 16-31	65	64	-2 (-3%)
Apr 1-15	71	69	-2 (-2%)
Apr 16-30	71	70	-1 (-2%)
May 1-31	76	77	0 (0%)
Jun 1-30	81	82	0 (1%)
Jul 1-31	85	85	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	79	79	0 (0%)
Oct 1-31	70	70	0 (0%)
Nov 1-10	61	62	1 (1%)
Nov 11-20	58	58	1 (1%)
Nov 21-30	53	54	1 (1%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	47	48	0 (0%)
Feb 1-28	54	55	1 (2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 110: Monthly Averages of Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	64	63	-1 (-1%)
Mar 16-31	68	66	-2 (-3%)
Apr 1-15	72	71	-1 (-1%)
Apr 16-30	73	73	0 (0%)
May 1-31	76	77	1 (1%)
Jun 1-30	80	81	0 (0%)
Jul 1-31	84	84	0 (0%)
Aug 1-31	83	83	0 (0%)
Sep 1-30	78	78	0 (0%)
Oct 1-31	71	71	0 (0%)
Nov 1-10	60	61	1 (1%)
Nov 11-20	55	56	1 (2%)
Nov 21-30	50	51	1 (2%)
Dec 1-31	46	46	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	56	57	1 (2%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 111: Monthly Averages of Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	60	1 (1%)
Mar 16-31	63	64	1 (1%)
Apr 1-15	66	66	1 (1%)
Apr 16-30	68	69	1 (1%)
May 1-31	73	73	1 (1%)
Jun 1-30	78	78	0 (0%)
Jul 1-31	82	82	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	76	77	0 (0%)
Oct 1-31	68	68	0 (1%)
Nov 1-10	60	60	1 (1%)
Nov 11-20	56	56	1 (1%)
Nov 21-30	52	52	0 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 112: Monthly Averages of Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	59	0 (0%)
Mar 16-31	62	62	0 (0%)
Apr 1-15	63	63	0 (0%)
Apr 16-30	67	67	0 (0%)
May 1-31	71	72	0 (1%)
Jun 1-30	76	77	0 (0%)
Jul 1-31	80	81	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	76	76	0 (0%)
Oct 1-31	67	68	0 (1%)
Nov 1-10	61	61	1 (1%)
Nov 11-20	56	56	0 (1%)
Nov 21-30	53	53	0 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 113: Monthly Averages of Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	60	61	0 (1%)
Mar 16-31	63	64	1 (1%)
Apr 1-15	66	66	0 (1%)
Apr 16-30	68	68	1 (1%)
May 1-31	73	74	1 (1%)
Jun 1-30	79	79	0 (0%)
Jul 1-31	82	83	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	76	77	0 (0%)
Oct 1-31	67	67	0 (1%)
Nov 1-10	59	59	0 (1%)
Nov 11-20	56	56	0 (1%)
Nov 21-30	51	52	0 (0%)
Dec 1-31	49	49	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 114: Monthly Averages of Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	60	1 (1%)
Mar 16-31	63	64	0 (1%)
Apr 1-15	67	68	1 (1%)
Apr 16-30	69	70	1 (1%)
May 1-31	74	75	1 (1%)
Jun 1-30	79	79	0 (1%)
Jul 1-31	82	82	0 (0%)
Aug 1-31	80	81	0 (0%)
Sep 1-30	77	77	0 (0%)
Oct 1-31	67	68	1 (1%)
Nov 1-10	60	60	1 (1%)
Nov 11-20	56	57	1 (1%)
Nov 21-30	53	53	0 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 115: Monthly Averages of Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	61	62	1 (2%)
Mar 16-31	64	65	1 (2%)
Apr 1-15	68	69	1 (2%)
Apr 16-30	70	71	1 (1%)
May 1-31	74	74	1 (1%)
Jun 1-30	78	79	0 (0%)
Jul 1-31	82	82	0 (0%)
Aug 1-31	81	82	0 (0%)
Sep 1-30	76	77	0 (0%)
Oct 1-31	69	69	1 (1%)
Nov 1-10	59	60	1 (1%)
Nov 11-20	55	55	1 (1%)
Nov 21-30	51	51	0 (0%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	1 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 116: Monthly Averages of Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Restoration All Years**

Month	All Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	59	1 (1%)
Mar 16-31	62	62	1 (1%)
Apr 1-15	64	65	1 (1%)
Apr 16-30	66	67	1 (2%)
May 1-31	70	71	1 (1%)
Jun 1-30	77	77	0 (0%)
Jul 1-31	81	81	0 (0%)
Aug 1-31	80	80	0 (0%)
Sep 1-30	75	75	0 (0%)
Oct 1-31	65	66	1 (1%)
Nov 1-10	58	59	1 (1%)
Nov 11-20	55	55	1 (1%)
Nov 21-30	52	52	0 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 117: Monthly Averages of Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Restoration Wet**

Month	Restoration Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	58	0 (0%)
Mar 16-31	61	61	0 (0%)
Apr 1-15	61	61	0 (0%)
Apr 16-30	64	64	0 (0%)
May 1-31	68	68	0 (0%)
Jun 1-30	74	74	0 (0%)
Jul 1-31	79	79	0 (0%)
Aug 1-31	79	79	0 (0%)
Sep 1-30	73	73	0 (0%)
Oct 1-31	64	64	0 (1%)
Nov 1-10	59	60	1 (1%)
Nov 11-20	55	55	0 (1%)
Nov 21-30	52	53	0 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 118: Monthly Averages of Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Restoration Normal-Wet**

Month	Restoration Normal-Wet Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	59	59	1 (1%)
Mar 16-31	62	62	1 (1%)
Apr 1-15	64	65	1 (2%)
Apr 16-30	64	66	2 (3%)
May 1-31	70	71	1 (1%)
Jun 1-30	78	79	0 (0%)
Jul 1-31	82	82	0 (0%)
Aug 1-31	80	81	0 (0%)
Sep 1-30	76	76	0 (0%)
Oct 1-31	65	66	0 (1%)
Nov 1-10	58	58	0 (1%)
Nov 11-20	55	55	1 (1%)
Nov 21-30	52	52	0 (0%)
Dec 1-31	50	50	0 (0%)
Jan 1-31	49	49	0 (0%)
Feb 1-28	53	53	0 (0%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 119: Monthly Averages of Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Restoration Normal-Dry**

Month	Restoration Normal-Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	58	59	1 (2%)
Mar 16-31	62	63	1 (1%)
Apr 1-15	67	68	1 (2%)
Apr 16-30	67	69	2 (2%)
May 1-31	71	73	1 (2%)
Jun 1-30	78	79	1 (1%)
Jul 1-31	81	82	0 (0%)
Aug 1-31	80	80	0 (0%)
Sep 1-30	76	77	0 (0%)
Oct 1-31	66	67	1 (1%)
Nov 1-10	59	59	1 (1%)
Nov 11-20	55	56	1 (2%)
Nov 21-30	52	52	1 (1%)
Dec 1-31	48	48	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	54	54	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(\%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 120: Monthly Averages of Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Restoration Dry**

Month	Restoration Dry Year Summary		
	No-Action Alternative (cfs)	Proposed Action (cfs)	Change from No Action (cfs)
Mar 1-15	60	61	1 (2%)
Mar 16-31	63	64	1 (2%)
Apr 1-15	67	68	1 (2%)
Apr 16-30	68	69	1 (1%)
May 1-31	72	73	1 (1%)
Jun 1-30	78	78	0 (1%)
Jul 1-31	81	81	0 (0%)
Aug 1-31	81	81	0 (0%)
Sep 1-30	76	76	0 (0%)
Oct 1-31	68	68	1 (1%)
Nov 1-10	57	58	1 (2%)
Nov 11-20	54	54	1 (2%)
Nov 21-30	50	50	0 (1%)
Dec 1-31	47	47	0 (0%)
Jan 1-31	48	48	0 (0%)
Feb 1-28	55	55	0 (1%)

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

(%) indicates percent change from either Existing Condition or No-Action Alternative

Key: Deg. = degree, F = Fahrenheit

**Table 121: Simulated Millerton Release (Head of Reach 1) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															2888	3686
1980	Wet	2395	1773	1889	1884	1561	2287	1069	227	207	161	135	124	122	118	102	105
1981	Normal-Dry	153	135	145	160	186	195	225	227	207	161	135	124	122	118	358	1939
1982	Wet	1944	2435	3846	4457	4113	2810	440	227	207	646	344	508	881	3120	3568	5052
1983	Wet	5206	5451	6491	6993	6102	10279	4885	323	207	161	135	124	595	2829	290	105
1984	Normal-Wet	156	142	145	160	186	195	225	227	207	161	135	124	122	118	102	105
1985	Normal-Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	489	4326
1986	Wet	5378	2827	2129	2186	2863	2306	404	227	207	161	135	124	122	118	102	105
1987	Dry	131	135	145	160	186	195	225	227	207	161	135	124	122	118	102	102
1988	Dry	122	135	145	160	186	195	225	227	207	161	135	124	122	118	102	105
1989	Normal-Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	102	105
1990	Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	102	105
1991	Normal-Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	102	102
1992	Dry	122	135	145	160	186	195	225	227	207	161	135	124	122	118	147	404
1993	Wet	320	600	1382	1681	1528	1431	526	227	207	161	135	124	122	118	102	105
1994	Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	353	2060
1995	Wet	2836	3201	3611	4087	4534	3347	5903	353	207	161	135	124	122	118	130	438
1996	Normal-Wet	1750	1454	540	581	1956	701	225	227	207	161	135	124	122	2116	9083	3562
1997	Wet	595	181	198	214	1213	212	225	227	207	161	135	124	122	118	274	3073
1998	Wet	1553	2000	2785	3365	4005	5028	4783	227	207	161	135	124	122	118	102	125
1999	Normal-Wet	135	135	145	160	186	195	225	227	207	161	135	124	122	118	102	102
2000	Normal-Wet	122	135	145	160	309	218	225	227	207	161	135	124	122	118	102	105
2001	Normal-Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	102	105
2002	Normal-Dry	123	135	145	160	186	195	225	227	207	161	135	124	122	118	102	105
2003	Normal-Wet	123	135	145	160	186	195	225	227	212							
	Average	996	915	1044	1160	1283	1306	910	237	207	182	144	141	176	454	792	1088
	Wet	2528	2309	2791	3108	3240	3462	2279	255	207	222	161	172	276	832	584	1138
	Normal-Wet	457	400	224	244	564	301	225	227	208	161	135	124	122	618	2455	1512
	Normal-Dry	128	135	145	160	186	195	225	227	207	161	135	124	122	118	209	1114
	Dry	124	135	145	160	186	195	225	227	207	161	135	124	122	118	161	555

**Notes:**

- Summarized from From SJR5Q flow and temperature model
- Simulation Period: Jan 1980 - Sep 2003
- Year type as defined by the Restoration Year Types
- Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 122: Simulated Millerton Release (Head of Reach 1) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979 Normal-Wet																	
1980	Wet	1647	1308	1503	1675	1712	2126	1138	350	350	364	429	451	353	158	132	413
1981	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	171	688
1982	Wet	1109	1932	3568	3955	2879	2204	506	350	350	364	429	451	353	2384	3186	3912
1983	Wet	5124	5874	6518	6753	5288	9783	4870	425	350	364	429	451	353	1778	147	402
1984	Normal-Wet	855	1152	1475	1313	498	350	350	350	350	364	429	451	353	158	132	413
1985	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	306	3224
1986	Wet	4476	2246	1783	1893	2519	2115	529	350	350	364	429	451	353	158	132	413
1987	Dry	859	866	510	350	350	350	350	350	350	364	429	451	353	158	131	402
1988	Dry	855	866	510	350	350	350	350	350	350	364	429	451	353	158	132	413
1989	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	132	413
1990	Dry	859	866	510	350	350	350	350	350	350	364	429	451	353	158	132	413
1991	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	131	402
1992	Dry	855	866	510	350	350	350	350	350	350	364	429	451	353	158	132	413
1993	Wet	859	1152	1475	1630	1655	2483	616	350	350	364	429	451	353	158	132	413
1994	Dry	859	866	510	350	350	350	350	350	350	364	429	451	353	158	173	1024
1995	Wet	3019	3594	3222	3026	2801	2518	5903	455	350	364	429	451	353	158	131	539
1996	Normal-Wet	1691	2005	1740	1313	498	582	350	350	350	364	429	451	353	158	8833	2681
1997	Wet	859	1152	1475	1630	1663	1502	503	350	350	364	429	451	353	158	132	1095
1998	Wet	1687	2252	2596	2776	2805	2753	4785	350	350	364	429	451	353	158	132	413
1999	Normal-Wet	859	1152	1475	1313	498	350	350	350	350	364	429	451	353	158	131	402
2000	Normal-Wet	855	1152	1475	1313	498	355	350	350	350	364	429	451	353	158	132	413
2001	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	132	413
2002	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	132	413
2003	Normal-Wet	859	1152	1475	1313	498	350	350	350	349							
	Average	1389	1521	1595	1527	1171	1305	1019	358	350	364	429	451	353	325	669	938
	Wet	2347	2439	2768	2917	2665	3185	2356	373	350	364	429	451	353	639	516	950
	Normal-Wet	1065	1366	1541	1313	498	409	350	350	350	364	429	451	353	158	2044	1340
	Normal-Dry	859	1009	992	832	424	350	350	350	350	364	429	451	353	158	167	925
	Dry	857	866	510	350	350	350	350	350	350	364	429	451	353	158	140	533

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 123: Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															3024	3861
1980	Wet	2438	1763	1757	1765	1409	2024	977	53	73	84	92	26	49	86	80	64
1981	Normal-Dry	189	206	94	60	87	70	46	90	82	67	26	36	62	78	384	2040
1982	Wet	1990	2541	3952	4324	3984	2644	321	128	130	545	386	289	632	3160	3762	5166
1983	Wet	5823	5509	6336	6866	5981	9909	5000	133	18	6	18	73	598	2822	332	82
1984	Normal-Wet	89	80	27	50	86	71	77	92	92	73	71	60	92	90	74	94
1985	Normal-Dry	96	81	66	38	58	44	67	87	77	56	55	59	71	67	393	4711
1986	Wet	5629	3363	2111	2046	2724	2176	277	92	81	96	62	51	48	78	71	63
1987	Dry	91	108	72	29	57	53	61	77	77	49	57	57	65	60	53	45
1988	Dry	49	45	39	64	62	38	40	45	54	28	16	17	35	62	69	40
1989	Normal-Dry	58	52	30	25	43	25	23	24	48	35	29	17	14	20	51	42
1990	Dry	38	45	24	22	25	8	10	16	25	15	17	10	8	20	29	26
1991	Normal-Dry	38	287	59	29	26	5	11	21	30	7	17	10	8	20	34	65
1992	Dry	47	57	30	22	24	5	10	14	17	6	17	10	8	20	506	556
1993	Wet	414	635	1299	1568	1373	1226	360	14	17	7	17	20	13	24	29	31
1994	Dry	38	44	24	22	28	5	10	14	17	6	17	10	8	20	543	2050
1995	Wet	3712	4332	3678	3979	4474	2922	5957	196	21	6	17	10	8	33	64	582
1996	Normal-Wet	1778	1591	498	450	1798	531	11	15	18	6	17	10	54	2197	9988	4221
1997	Wet	576	180	84	79	1016	60	10	14	17	6	17	10	8	20	300	3961
1998	Wet	1747	2266	3339	3369	3980	4707	4866	14	17	6	17	10	8	20	35	77
1999	Normal-Wet	61	65	96	42	40	20	16	14	17	16	32	21	29	42	31	474
2000	Normal-Wet	591	126	48	79	170	47	11	17	17	6	17	10	8	20	30	36
2001	Normal-Dry	67	53	32	38	39	5	12	14	17	6	17	10	8	20	42	31
2002	Normal-Dry	40	46	24	22	24	10	12	21	19	6	17	11	9	20	29	26
2003	Normal-Wet	38	45	24	22	31	5	10	19	22							
	Average	1068	980	989	1042	1148	1109	758	51	42	49	46	36	80	391	831	1181
	Wet	2791	2574	2819	2999	3118	3208	2221	80	47	94	78	61	171	781	584	1253
	Normal-Wet	511	381	139	128	425	135	25	31	33	25	34	25	46	587	2630	1737
	Normal-Dry	81	121	51	35	46	27	28	43	46	29	27	24	29	38	155	1152
	Dry	53	60	38	32	39	22	26	33	38	21	25	21	25	36	240	544

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 124: Simulated San Joaquin River At Gravelly Ford (Head of Reach 2A) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1150	2963
1980	Wet	1691	1276	1370	1538	1558	1863	1042	175	215	283	381	354	290	130	107	359
1981	Normal-Dry	877	1081	943	750	335	226	171	212	225	266	315	364	303	123	218	799
1982	Wet	1126	2027	3662	3857	2754	2011	383	250	272	298	347	353	295	2346	3377	4041
1983	Wet	5659	5949	6385	6636	5174	9405	4978	231	159	205	307	401	458	1783	151	366
1984	Normal-Wet	783	1063	1340	1239	418	226	202	214	234	272	360	388	334	135	101	390
1985	Normal-Dry	813	956	915	729	307	200	192	210	220	256	344	387	312	112	230	3620
1986	Wet	4731	2744	1754	1758	2375	1976	403	214	223	296	351	379	289	123	98	358
1987	Dry	800	856	458	221	222	209	187	199	219	249	346	385	306	105	79	332
1988	Dry	763	793	425	256	226	194	165	167	197	228	305	345	276	107	96	335
1989	Normal-Dry	775	927	879	715	291	180	148	146	190	234	318	345	256	65	77	337
1990	Dry	755	793	410	213	190	162	136	138	168	214	306	338	249	65	56	321
1991	Normal-Dry	755	1162	908	719	275	159	137	144	172	206	306	338	249	65	59	353
1992	Dry	762	805	415	213	189	159	135	136	158	205	306	338	249	65	493	555
1993	Wet	928	1209	1417	1510	1495	2282	448	136	158	207	306	348	255	69	56	326
1994	Dry	756	792	410	213	192	159	135	136	158	205	306	338	249	65	383	1006
1995	Wet	3829	4760	3332	2955	2740	2062	5951	294	164	205	306	338	249	78	65	673
1996	Normal-Wet	1782	2047	1680	1250	359	391	136	137	161	205	306	338	295	428	9604	3344
1997	Wet	801	1121	1345	1494	1502	1329	307	136	158	205	306	338	249	65	174	1991
1998	Wet	1801	2541	3176	2809	2788	2460	4808	136	158	205	306	338	249	65	61	351
1999	Normal-Wet	766	1067	1408	1230	372	175	141	136	158	215	321	349	270	87	57	762
2000	Normal-Wet	1305	1129	1360	1268	395	165	137	139	158	205	306	338	249	65	57	331
2001	Normal-Dry	785	928	881	728	287	159	137	136	158	205	306	338	249	65	69	326
2002	Normal-Dry	757	921	873	712	273	165	138	143	162	205	306	338	250	65	56	321
2003	Normal-Wet	755	1048	1337	1210	363	159	135	141	157							
	Average	1440	1583	1545	1426	1045	1103	865	171	183	229	321	353	280	273	703	1023
	Wet	2571	2703	2805	2820	2548	2923	2290	197	189	238	326	356	292	583	511	1058
	Normal-Wet	1159	1326	1447	1247	386	239	154	157	178	224	323	353	287	179	2194	1558
	Normal-Dry	794	996	900	725	294	182	154	165	188	229	316	352	270	83	118	959
	Dry	767	808	423	223	204	177	152	155	180	220	314	349	266	81	222	510

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 125: Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															394	842
1980	Wet	0	0	208	1012	1159	918	427	10	18	29	40	0	11	31	25	14
1981	Normal-Dry	134	152	39	11	37	22	2	35	28	15	0	0	11	24	323	1230
1982	Wet	1069	1221	1064	0	435	1161	242	73	75	285	351	47	0	21	12	0
1983	Wet	0	0	0	0	0	1244	710	102	0	0	0	0	80	461	0	42
1984	Normal-Wet	33	30	0	10	31	19	22	37	37	18	17	8	37	36	20	40
1985	Normal-Dry	41	26	21	2	4	3	14	33	23	4	2	6	15	17	321	1335
1986	Wet	738	0	0	91	563	625	229	38	26	42	8	0	0	25	17	9
1987	Dry	35	53	29	0	4	3	7	22	22	4	7	2	10	5	1	0
1988	Dry	0	1	0	14	14	0	0	0	1	0	0	0	0	9	15	4
1989	Normal-Dry	8	1	0	0	0	0	0	0	1	0	0	0	0	0	8	1
1990	Dry	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	Normal-Dry	0	232	15	0	0	0	0	0	0	0	0	0	0	0	0	29
1992	Dry	2	7	0	0	0	0	0	0	0	0	0	0	0	0	427	497
1993	Wet	365	568	1229	1266	1214	1075	295	0	0	0	0	0	0	0	0	0
1994	Dry	0	1	0	0	0	0	0	0	0	0	0	0	0	0	480	1299
1995	Wet	1043	862	1	0	0	1256	1827	177	0	0	0	0	0	0	20	519
1996	Normal-Wet	1229	1221	453	385	714	362	0	0	0	0	0	0	8	816	1131	0
1997	Wet	289	131	29	24	644	59	0	0	0	0	0	0	0	0	247	1218
1998	Wet	1135	353	11	0	0	335	789	0	0	0	0	0	0	0	0	30
1999	Normal-Wet	8	10	41	8	0	0	0	0	0	0	0	0	0	0	0	417
2000	Normal-Wet	553	74	4	25	100	39	0	0	0	0	0	0	0	0	0	0
2001	Normal-Dry	19	3	0	0	0	0	0	0	0	0	0	0	0	0	4	0
2002	Normal-Dry	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	Normal-Wet	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	279	206	131	119	205	297	190	22	10	17	18	3	7	63	143	314
	Wet	580	392	318	299	502	834	565	50	15	45	50	6	11	67	40	229
	Normal-Wet	365	267	100	86	169	84	4	7	7	5	4	2	11	213	309	260
	Normal-Dry	34	69	13	2	7	4	3	11	9	3	0	1	4	7	109	433
	Dry	8	13	6	3	4	1	1	4	5	1	1	0	2	3	184	360

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 126: Simulated San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															170	502
1980	Wet	0	0	212	1013	1233	918	481	120	160	227	326	299	236	78	51	302
1981	Normal-Dry	814	1010	886	700	283	171	116	157	169	211	258	309	250	69	163	688
1982	Wet	1001	1221	1064	0	435	1150	304	194	217	243	291	256	0	37	1	0
1983	Wet	0	0	0	0	0	1184	716	178	104	105	67	0	156	311	16	307
1984	Normal-Wet	720	1002	1194	1062	368	171	147	159	179	217	304	332	281	82	45	330
1985	Normal-Dry	751	899	860	677	254	145	138	155	165	200	287	331	258	63	171	1228
1986	Wet	680	0	0	91	563	627	354	159	168	240	295	324	237	70	42	299
1987	Dry	737	803	409	167	167	154	132	144	164	193	289	329	254	52	24	274
1988	Dry	701	741	375	200	172	139	111	112	141	173	249	289	224	54	40	276
1989	Normal-Dry	713	870	822	663	239	126	94	91	135	179	262	290	203	28	34	278
1990	Dry	693	741	360	159	135	108	81	83	112	158	250	283	197	28	16	262
1991	Normal-Dry	693	1089	853	668	222	105	82	89	117	151	250	283	197	28	15	294
1992	Dry	699	752	366	159	134	105	81	81	103	149	250	283	197	28	415	492
1993	Wet	870	1143	1323	1252	1283	1216	358	81	103	151	250	293	203	30	16	267
1994	Dry	693	740	360	159	138	105	81	81	103	149	250	283	197	28	326	855
1995	Wet	1055	862	1	0	0	1122	1826	246	108	149	250	283	197	29	21	608
1996	Normal-Wet	1438	1405	1389	1202	289	275	82	82	105	149	250	283	242	355	1040	0
1997	Wet	466	1060	1164	1118	1151	928	258	81	103	149	250	283	197	28	125	1074
1998	Wet	1135	353	11	0	0	0	820	81	103	149	250	283	197	28	21	292
1999	Normal-Wet	704	1005	1136	1030	322	120	87	81	103	159	265	294	218	42	17	666
2000	Normal-Wet	1233	1069	1152	1065	345	111	82	85	103	149	250	283	197	28	16	272
2001	Normal-Dry	722	871	825	676	235	105	83	82	103	149	250	283	197	28	21	267
2002	Normal-Dry	695	864	817	660	220	110	83	88	106	149	250	283	198	28	16	262
2003	Normal-Wet	693	986	1125	1031	313	105	81	86	102							
	Average	746	812	696	573	354	387	278	117	128	172	256	281	206	68	118	421
	Wet	651	580	472	434	583	893	640	143	133	177	247	253	178	76	37	394
	Normal-Wet	1024	1120	1218	1090	331	169	100	102	123	168	267	298	234	127	258	354
	Normal-Dry	731	934	844	674	242	127	99	110	133	173	259	297	217	41	70	503
	Dry	705	756	374	169	149	122	97	100	125	164	257	294	214	38	164	432

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 127: Simulated San Joaquin River Below Mendota Pool (Head of Reach 3) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1372	2339
1980	Wet	4286	3152	1319	1288	1139	1303	492	474	314	244	170	116	88	172	59	155
1981	Normal-Dry	358	241	207	223	236	429	535	482	316	241	146	115	80	168	306	1281
1982	Wet	1296	1299	1471	3915	2411	1161	677	518	355	492	545	940	2751	3875	3593	4713
1983	Wet	4892	4792	4751	4418	3495	3772	2121	320	0	1035	1510	2158	2081	2799	3136	110
1984	Normal-Wet	266	211	122	203	222	426	538	485	322	239	148	115	94	172	47	166
1985	Normal-Dry	276	183	214	210	218	421	538	480	309	239	146	116	87	169	344	1527
1986	Wet	2351	4358	4140	2116	1303	1315	739	485	312	255	146	116	85	173	48	150
1987	Dry	277	202	224	204	217	421	536	477	309	239	146	116	86	165	49	170
1988	Dry	254	186	194	212	221	420	537	472	307	239	145	116	85	167	50	157
1989	Normal-Dry	267	185	192	213	218	421	536	472	307	238	146	116	85	165	48	160
1990	Dry	267	187	199	206	220	421	536	471	307	240	143	116	86	164	51	156
1991	Normal-Dry	265	285	183	212	220	420	538	471	307	239	147	117	82	166	51	164
1992	Dry	249	173	189	223	220	417	534	473	305	235	142	116	86	164	374	490
1993	Wet	313	547	881	1147	1103	988	695	465	303	236	152	115	94	168	51	155
1994	Dry	271	171	194	213	219	423	537	475	309	239	147	111	81	167	414	1287
1995	Wet	1299	1220	2135	2157	2283	1182	1535	509	307	240	148	115	80	198	56	501
1996	Normal-Wet	975	1104	330	1	995	732	542	470	309	239	144	111	80	989	3931	4175
1997	Wet	997	21	18	212	786	459	530	430	284	210	134	98	99	176	232	1247
1998	Wet	1290	1332	2409	3674	3080	2415	1545	377	227	171	35	96	97	351	0	61
1999	Normal-Wet	217	176	208	212	217	403	342	438	306	235	146	116	85	168	47	330
2000	Normal-Wet	294	0	0	166	299	434	537	478	310	240	138	115	97	174	59	142
2001	Normal-Dry	254	177	195	212	219	410	539	478	294	240	140	117	86	165	39	150
2002	Normal-Dry	266	183	197	217	214	421	538	473	311	237	145	113	85	165	50	153
2003	Normal-Wet	266	187	191	211	218	410	534	475	310							
	Average	906	857	840	919	832	818	697	464	293	281	218	238	290	489	600	831
	Wet	2090	2090	2140	2366	1950	1574	1042	447	263	360	355	469	672	989	897	887
	Normal-Wet	404	336	170	159	390	481	499	469	311	238	144	114	89	376	1091	1431
	Normal-Dry	281	209	198	215	221	420	537	476	307	239	145	116	85	166	140	573
	Dry	264	184	200	211	219	420	536	474	307	238	145	115	85	165	188	452

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 128: Simulated San Joaquin River Below Mendota Pool (Head of Reach 3) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1152	2007
1980	Wet	4272	3152	1323	1289	1213	1303	535	564	442	438	452	388	296	220	80	423
1981	Normal-Dry	1029	1098	1053	901	478	568	624	602	451	424	376	396	304	208	153	734
1982	Wet	1224	1300	1471	3915	2411	1151	733	640	497	456	449	1139	2751	3892	3593	4704
1983	Wet	4892	4792	4751	4418	3495	3713	2126	349	1	1114	1571	2158	2157	2649	3145	355
1984	Normal-Wet	939	1160	1288	1243	563	566	656	605	460	428	424	420	340	220	68	447
1985	Normal-Dry	980	1049	1040	864	448	539	648	601	445	411	405	420	318	214	199	1416
1986	Wet	2294	4358	4140	2116	1303	1316	863	604	447	452	413	413	299	211	65	418
1987	Dry	966	956	601	344	357	548	641	589	445	405	406	418	315	204	61	413
1988	Dry	922	905	548	385	365	532	620	557	421	384	365	377	285	201	71	403
1989	Normal-Dry	946	1029	988	855	433	520	603	536	414	389	380	380	265	185	69	408
1990	Dry	927	906	539	338	328	502	591	527	392	371	365	373	259	183	59	388
1991	Normal-Dry	925	1139	1003	858	418	498	593	532	397	362	368	374	255	185	58	407
1992	Dry	916	902	535	356	327	495	588	527	381	356	364	372	259	183	362	483
1993	Wet	799	1136	981	1132	1170	1131	743	520	379	359	373	381	273	189	59	391
1994	Dry	931	889	534	346	330	500	592	529	384	360	369	367	254	186	266	837
1995	Wet	1311	1220	2135	2157	2283	1051	1532	559	388	361	369	372	253	217	58	587
1996	Normal-Wet	1190	1281	1187	712	667	628	597	525	387	360	365	368	296	527	3844	4175
1997	Wet	1165	835	1265	1298	1301	1297	767	484	360	331	355	354	272	195	115	1098
1998	Wet	1290	1332	2409	3674	3080	2102	1554	437	303	293	257	352	253	375	0	295
1999	Normal-Wet	889	1149	1303	1216	518	496	403	492	381	366	383	383	278	198	56	569
2000	Normal-Wet	930	472	1291	1243	542	477	592	535	386	361	360	371	270	193	67	384
2001	Normal-Dry	936	1021	993	866	430	488	595	533	370	361	361	373	259	184	48	386
2002	Normal-Dry	928	1020	988	855	410	504	595	534	390	359	366	370	259	184	58	384
2003	Normal-Wet	926	1142	1290	1219	511	488	588	534	385							
	Average	1355	1427	1402	1358	974	892	766	538	388	413	430	492	468	487	571	921
	Wet	2156	2266	2309	2500	2032	1633	1107	520	352	476	530	695	819	993	889	1034
	Normal-Wet	987	1015	1267	1104	573	542	562	539	404	379	383	385	296	285	1037	1516
	Normal-Dry	957	1059	1011	866	436	519	610	556	411	384	376	385	277	193	97	622
	Dry	933	912	551	354	342	516	606	546	405	375	374	382	274	191	164	505

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 129: Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1257	2091
1980	Wet	4053	3175	1147	1055	904	880	233	110	83	39	42	16	14	38	19	12
1981	Normal-Dry	106	92	17	8	13	24	83	80	77	37	21	13	10	31	241	1144
1982	Wet	1031	1136	1169	3602	2267	755	320	90	94	247	538	697	2488	3707	3530	4532
1983	Wet	4669	4621	4575	4230	3299	3283	1740	142	250	871	1261	1965	1877	2613	3238	45
1984	Normal-Wet	17	64	7	0	0	23	53	81	76	35	20	14	21	39	13	18
1985	Normal-Dry	26	28	23	7	2	33	62	79	73	40	18	14	15	34	262	1383
1986	Wet	1886	4140	4001	2087	1065	890	274	84	76	52	18	15	14	39	15	4
1987	Dry	25	48	53	21	2	22	66	88	74	42	17	14	14	31	14	11
1988	Dry	15	35	11	4	10	37	87	114	95	63	19	16	14	33	15	8
1989	Normal-Dry	17	33	9	16	12	47	104	135	102	57	18	15	17	33	14	9
1990	Dry	16	33	49	43	52	73	127	153	124	83	22	24	36	39	18	26
1991	Normal-Dry	15	128	11	13	35	75	120	141	119	92	21	26	33	37	17	9
1992	Dry	11	19	17	53	77	140	171	214	194	141	19	25	36	45	331	328
1993	Wet	284	368	706	880	911	549	513	218	196	97	25	18	31	39	25	14
1994	Dry	17	20	41	50	35	92	169	196	190	110	27	29	26	35	338	1265
1995	Wet	1049	1056	1893	1896	2066	750	1109	238	138	96	27	33	34	68	23	358
1996	Normal-Wet	1156	993	311	0	954	510	134	158	147	104	22	20	10	797	3800	4133
1997	Wet	897	29	0	5	523	94	163	222	208	155	20	54	119	108	195	1077
1998	Wet	1059	1160	2083	3406	2883	1945	1235	212	282	253	18	90	301	215	0	131
1999	Normal-Wet	5	22	20	6	10	107	214	218	175	91	18	15	13	35	14	148
2000	Normal-Wet	223	6	0	0	43	214	128	173	184	132	24	55	96	112	57	5
2001	Normal-Dry	14	22	12	5	15	113	123	194	212	126	19	25	38	48	8	4
2002	Normal-Dry	16	30	12	31	42	63	130	139	147	105	22	16	22	36	16	5
2003	Normal-Wet	17	34	9	3	22	147	149	156	177							
	Average	693	721	674	726	635	453	313	152	145	133	98	140	230	357	561	698
	Wet	1866	1961	1947	2145	1740	1143	698	165	166	226	244	361	610	853	881	772
	Normal-Wet	283	224	69	2	206	200	136	157	151	91	21	26	35	246	1028	1279
	Normal-Dry	32	56	14	13	20	59	104	128	122	76	20	18	22	36	93	426
	Dry	17	31	34	34	35	73	124	153	135	88	21	22	25	37	143	328

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 130: Simulated San Joaquin River Below Sack Dam (Head of Reach 4A) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1037	1762
1980	Wet	4034	3175	1151	1056	978	880	249	199	210	230	320	291	230	94	35	257
1981	Normal-Dry	736	948	859	703	259	154	170	199	210	218	244	293	243	79	114	576
1982	Wet	942	1140	1169	3602	2267	745	371	211	234	250	304	941	2477	3724	3530	4522
1983	Wet	4669	4621	4575	4230	3299	3234	1735	166	251	944	1344	1965	1953	2466	3241	253
1984	Normal-Wet	652	985	1105	1031	349	151	172	200	212	220	290	316	279	94	30	272
1985	Normal-Dry	692	893	854	668	240	148	173	200	208	210	270	317	257	87	138	1248
1986	Wet	1833	4137	4001	2087	1065	891	394	203	210	246	280	312	241	82	29	245
1987	Dry	673	821	459	164	137	148	172	199	208	206	268	317	256	77	24	231
1988	Dry	640	773	384	164	145	147	172	199	208	205	232	275	226	73	33	231
1989	Normal-Dry	656	876	799	673	240	148	172	199	207	205	246	279	210	57	32	236
1990	Dry	639	770	415	180	161	154	182	209	207	211	236	281	223	63	23	237
1991	Normal-Dry	638	978	821	675	248	154	177	201	208	212	235	283	220	60	22	228
1992	Dry	633	767	383	190	186	219	226	268	268	259	234	282	223	68	321	307
1993	Wet	744	951	840	861	972	700	558	272	270	217	239	282	226	64	31	222
1994	Dry	641	756	408	186	147	170	225	250	264	228	242	286	213	59	214	788
1995	Wet	1061	1056	1893	1896	2066	637	1089	286	218	214	241	290	220	92	24	431
1996	Normal-Wet	1395	1129	1023	569	660	378	190	212	223	222	236	277	235	352	3725	4133
1997	Wet	1031	670	1072	1068	1064	875	428	276	282	273	235	306	306	132	98	907
1998	Wet	1059	1160	2083	3406	2883	1705	1170	270	356	371	162	324	478	241	0	337
1999	Normal-Wet	616	973	1117	1009	335	200	277	272	249	218	251	282	219	71	20	380
2000	Normal-Wet	821	318	1093	1031	339	215	184	230	258	250	238	312	283	136	63	216
2001	Normal-Dry	645	866	805	671	241	192	180	248	286	244	234	282	224	71	15	213
2002	Normal-Dry	638	866	799	683	253	147	187	199	225	223	236	273	210	60	21	212
2003	Normal-Wet	636	968	1103	1011	339	225	204	215	250							
	Average	1113	1275	1217	1159	786	526	377	224	238	264	296	394	420	361	534	769
	Wet	1922	2114	2098	2276	1824	1208	749	235	254	343	391	589	766	862	874	897
	Normal-Wet	871	851	1084	910	421	236	206	229	235	228	254	297	254	163	975	1353
	Normal-Dry	667	904	823	679	247	157	177	208	224	219	244	288	227	69	57	452
	Dry	645	778	410	177	155	168	195	225	231	222	242	288	228	68	123	359

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 131: Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1	2
1980	Wet	4	3	2	2	2	1	1	1	0	0	0	0	0	0	0	0
1981	Normal-Dry	1	1	0	0	0	0	1	1	1	0	0	0	0	0	1	2
1982	Wet	2	2	2	3	2	1	1	1	1	1	1	1	2	3	3	4
1983	Wet	4	4	4	4	3	3	2	1	1	1	2	2	3	3	3	0
1984	Normal-Wet	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0
1985	Normal-Dry	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	2
1986	Wet	2	4	4	2	2	2	1	1	1	1	0	0	0	0	0	0
1987	Dry	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
1988	Dry	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
1989	Normal-Dry	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
1990	Dry	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0
1991	Normal-Dry	0	1	0	0	0	1	1	1	1	1	0	0	0	0	0	0
1992	Dry	0	0	0	1	1	1	1	1	1	0	0	0	0	0	1	1
1993	Wet	1	1	1	1	2	1	1	1	1	1	0	0	0	0	0	0
1994	Dry	0	0	0	1	0	1	1	1	1	1	0	0	0	0	1	2
1995	Wet	2	2	2	2	2	1	2	1	1	1	0	0	0	0	0	1
1996	Normal-Wet	2	2	1	0	1	1	1	1	1	1	0	0	0	1	3	4
1997	Wet	2	0	0	0	1	0	1	1	1	1	0	0	1	1	1	2
1998	Wet	2	2	2	3	3	2	2	1	1	1	0	1	1	1	0	1
1999	Normal-Wet	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1
2000	Normal-Wet	1	0	0	0	0	1	1	1	1	1	0	0	1	1	1	0
2001	Normal-Dry	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0
2002	Normal-Dry	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0
2003	Normal-Wet	0	0	0	0	0	1	1	1	1							
	Average	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1
	Wet	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	Normal-Wet	1	1	0	0	0	1	1	1	1	1	0	0	0	1	1	1
	Normal-Dry	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1
	Dry	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	1

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 132: Simulated San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1	2
1980	Wet	4	3	2	2	2	1	1	1	1	1	1	1	1	1	0	1
1981	Normal-Dry	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1982	Wet	2	2	2	3	2	1	1	1	1	1	1	1	2	3	3	4
1983	Wet	4	4	4	4	3	3	2	1	1	2	2	2	2	2	3	1
1984	Normal-Wet	1	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1
1985	Normal-Dry	1	2	1	1	1	1	1	1	1	1	1	1	1	1	0	2
1986	Wet	2	4	4	2	2	2	1	1	1	1	1	1	1	1	0	1
1987	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
1988	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
1989	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
1990	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
1991	Normal-Dry	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1
1992	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
1993	Wet	1	2	1	1	2	1	1	1	1	1	1	1	1	0	0	1
1994	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
1995	Wet	2	2	2	2	2	1	2	1	1	1	1	1	1	0	1	1
1996	Normal-Wet	2	2	2	1	1	1	1	1	1	1	1	1	1	1	3	4
1997	Wet	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1
1998	Wet	2	2	2	3	3	2	2	1	1	1	1	1	1	0	1	1
1999	Normal-Wet	1	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1
2000	Normal-Wet	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
2001	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
2002	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1
2003	Normal-Wet	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
	Average	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
	Wet	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	Normal-Wet	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2
	Normal-Dry	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1
	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 133: Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															664	835
1980	Wet	1274	816	79	9	4	25	102	2	2	1	1	1	1	1	1	1
1981	Normal-Dry	2	2	1	1	1	1	2	2	2	1	1	1	1	1	2	19
1982	Wet	6	18	330	1551	1077	84	3	2	2	2	4	3	109	1225	1301	2168
1983	Wet	2367	2303	2471	2575	2070	2642	1627	2	2	4	4	6	59	660	533	1
1984	Normal-Wet	1	2	1	0	0	1	2	2	2	1	1	1	1	1	1	1
1985	Normal-Dry	1	1	1	1	0	1	2	2	2	1	1	1	1	1	2	593
1986	Wet	1093	1698	1132	530	213	182	2	2	2	2	1	1	1	1	1	0
1987	Dry	1	2	1	1	0	1	2	2	2	1	1	1	1	1	1	1
1988	Dry	1	1	1	0	0	1	2	2	2	2	1	1	1	1	1	1
1989	Normal-Dry	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1
1990	Dry	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	1
1991	Normal-Dry	1	2	1	1	1	2	2	2	2	2	1	1	1	1	1	1
1992	Dry	1	1	1	2	2	2	2	2	2	2	1	1	1	1	2	3
1993	Wet	3	3	4	4	4	3	3	2	2	2	1	1	1	1	1	1
1994	Dry	1	1	1	2	1	2	2	2	2	2	1	1	1	1	2	7
1995	Wet	240	585	903	957	1224	174	1070	3	2	2	1	1	1	1	1	3
1996	Normal-Wet	12	34	2	0	186	3	2	2	2	2	1	1	1	79	2979	2038
1997	Wet	11	1	0	0	3	1	2	2	2	2	1	1	2	2	2	397
1998	Wet	50	120	804	1227	1314	975	1202	2	3	3	1	1	3	2	0	2
1999	Normal-Wet	0	1	1	0	1	2	2	2	2	2	1	1	1	1	1	2
2000	Normal-Wet	2	1	0	0	0	2	2	2	2	2	1	1	2	2	2	0
2001	Normal-Dry	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	0
2002	Normal-Dry	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	0
2003	Normal-Wet	1	1	1	0	1	2	2	2	2	2						
	Average	211	233	239	286	255	171	169	2	2	2	1	9	87	229	253	
	Wet	631	693	715	857	739	511	502	2	2	2	2	22	237	230	322	
	Normal-Wet	3	8	1	0	38	2	2	2	2	2	1	1	1	21	729	575
	Normal-Dry	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	102
	Dry	1	1	1	1	1	2	2	2	2	2	1	1	1	1	2	2

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 134: Simulated San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															178	700
1980	Wet	1015	652	19	5	5	25	102	2	2	2	3	3	2	2	1	2
1981	Normal-Dry	3	4	4	4	3	2	2	2	2	2	2	3	3	2	2	3
1982	Wet	4	6	231	1440	739	5	3	2	2	2	3	4	68	983	1183	1846
1983	Wet	2238	2441	2507	2517	1835	2488	1606	2	2	4	5	7	52	431	451	2
1984	Normal-Wet	3	4	4	5	3	2	2	2	2	2	3	3	3	2	1	2
1985	Normal-Dry	3	4	4	3	3	2	2	2	2	2	2	3	3	2	1	462
1986	Wet	812	1444	1013	446	111	101	3	2	2	2	3	3	3	2	1	2
1987	Dry	3	4	3	2	2	2	2	2	2	2	2	3	3	2	1	2
1988	Dry	3	4	3	2	2	2	2	2	2	2	2	3	2	2	1	2
1989	Normal-Dry	3	4	4	3	3	2	2	2	2	2	2	3	2	1	1	2
1990	Dry	3	4	3	2	2	2	2	2	2	2	2	3	2	2	1	2
1991	Normal-Dry	3	4	4	4	3	2	2	2	2	2	2	3	2	2	1	2
1992	Dry	3	4	3	2	2	2	2	3	3	3	2	3	2	2	2	3
1993	Wet	4	4	4	4	4	42	6	3	3	2	2	3	2	2	1	2
1994	Dry	3	4	3	2	2	2	2	2	3	2	2	3	2	2	2	4
1995	Wet	261	739	841	685	708	59	1019	3	2	2	2	3	2	2	1	3
1996	Normal-Wet	5	6	5	3	3	3	2	2	2	2	2	3	2	3	2880	1781
1997	Wet	6	3	4	5	5	5	3	3	3	3	2	3	3	2	2	44
1998	Wet	15	158	766	1087	966	472	985	2	3	3	2	3	3	2	0	2
1999	Normal-Wet	3	4	5	5	3	2	3	3	2	2	2	3	2	2	1	3
2000	Normal-Wet	4	3	4	5	3	2	2	2	2	2	2	3	3	2	2	2
2001	Normal-Dry	3	4	4	3	3	2	2	2	3	2	2	3	2	2	1	2
2002	Normal-Dry	3	4	4	4	3	2	2	2	2	2	2	3	2	2	1	2
2003	Normal-Wet	3	4	5	5	3	2	2	2	2	2	2	3	2	2	1	2
	Average	184	230	227	260	184	135	157	2	2	3	3	3	8	63	197	203
	Wet	544	681	673	774	547	400	466	2	2	3	3	3	17	178	205	238
	Normal-Wet	4	4	5	4	3	2	2	2	2	2	2	3	3	2	612	498
	Normal-Dry	3	4	4	4	3	2	2	2	2	2	2	3	2	2	1	79
	Dry	3	4	3	2	2	2	2	2	2	2	2	3	2	2	2	3

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 135: Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979 Normal-Wet																	
1980	Wet	6943	5256	2758	1930	1161	1880	1131	248	244	164	98	84	82	109	145	155
1981	Normal-Dry	267	315	113	135	108	92	162	164	160	113	61	107	108	112	386	2051
1982	Wet	2153	2752	4580	7772	6168	2381	700	262	340	512	1385	561	2596	6769	7548	11183
1983	Wet	12377	11623	10950	11079	9538	11150	7725	516	628	1221	1107	1958	2176	4736	4079	198
1984	Normal-Wet	196	246	169	145	126	152	189	225	225	198	93	68	29	56	87	116
1985	Normal-Dry	155	202	160	137	101	134	186	200	188	126	66	62	96	121	285	4468
1986	Wet	6750	8868	6298	4346	3299	2729	540	253	294	213	104	81	83	119	126	110
1987	Dry	186	189	140	153	74	96	156	177	155	98	63	65	91	91	137	88
1988	Dry	120	114	68	123	61	98	137	181	151	98	28	23	24	58	68	52
1989	Normal-Dry	101	104	52	173	55	81	143	174	160	121	55	56	71	85	78	80
1990	Dry	68	62	47	90	70	87	153	182	147	96	37	22	41	46	28	31
1991	Normal-Dry	71	304	88	23	37	75	125	150	129	104	33	24	41	43	37	151
1992	Dry	109	108	86	60	77	138	179	217	201	156	34	29	45	60	794	625
1993	Wet	491	537	811	988	1099	579	651	224	218	163	141	89	80	102	104	160
1994	Dry	97	75	74	92	56	125	198	232	222	158	86	64	64	85	711	1955
1995	Wet	3894	5558	5496	5643	6604	2384	5765	511	349	275	188	106	106	142	199	713
1996	Normal-Wet	1591	2035	583	57	2011	873	258	299	269	237	176	131	213	2169	14213	10084
1997	Wet	1541	204	142	75	905	191	248	315	284	239	98	94	178	203	406	5284
1998	Wet	2598	3582	6455	6734	7254	5875	6432	358	435	451	235	135	384	268	49	221
1999	Normal-Wet	153	218	232	45	85	121	223	261	243	176	106	88	59	51	66	466
2000	Normal-Wet	770	65	55	202	136	281	192	215	213	186	165	145	200	175	168	112
2001	Normal-Dry	217	133	104	96	83	141	146	214	241	147	121	93	108	128	213	117
2002	Normal-Dry	118	110	72	60	79	81	143	153	182	139	86	63	74	143	162	92
2003	Normal-Wet	105	116	57	53	54	146	172	169	197							
	Average	1711	1782	1650	1675	1635	1245	1081	246	245	234	199	180	302	690	1406	1824
	Wet	4593	4797	4686	4821	4503	3396	2899	336	349	405	420	389	711	1556	1582	2253
	Normal-Wet	563	536	219	100	483	314	207	234	229	199	135	108	125	612	3640	3207
	Normal-Dry	155	195	98	104	77	101	151	176	177	125	70	67	83	105	193	1160
	Dry	116	110	83	104	67	109	164	198	175	121	50	41	53	68	348	550

## Notes:

- Summarized from From SJR5Q flow and temperature model
- Simulation Period: Jan 1980 - Sep 2003
- Year type as defined by the Restoration Year Types
- Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 136: Simulated San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1886	4430
1980	Wet	6023	4703	2363	1643	1296	1724	1142	333	370	348	367	366	315	179	155	371
1981	Normal-Dry	844	1182	960	874	385	226	251	282	292	291	275	378	362	175	301	867
1982	Wet	1163	2190	4243	7420	4972	1633	738	383	478	507	540	830	2277	5984	7151	10128
1983	Wet	11894	12082	11084	10894	8756	10630	7654	545	629	1329	1329	2246	2380	3764	3808	378
1984	Normal-Wet	775	1129	1317	1361	535	284	309	344	360	378	352	364	311	127	98	338
1985	Normal-Dry	774	1061	1006	838	371	251	298	320	322	291	304	356	365	189	201	3523
1986	Wet	5773	8018	5894	4068	2936	2492	665	372	427	401	359	374	338	177	135	319
1987	Dry	784	990	610	309	210	223	264	286	288	259	295	364	359	151	143	279
1988	Dry	697	882	498	296	201	210	224	265	262	239	230	277	259	111	79	248
1989	Normal-Dry	689	941	852	872	316	184	213	237	261	266	273	316	292	121	89	280
1990	Dry	640	826	473	242	182	171	212	236	229	219	238	274	254	80	30	211
1991	Normal-Dry	643	1155	911	728	284	157	185	208	217	220	234	277	254	78	39	339
1992	Dry	681	881	513	212	188	220	237	271	273	269	235	281	259	95	787	585
1993	Wet	886	1154	1046	921	1197	1533	818	278	290	278	343	345	305	138	106	338
1994	Dry	671	838	501	244	171	206	256	286	294	272	288	317	278	120	628	896
1995	Wet	3756	6077	5318	4762	4887	1563	5567	554	427	388	389	359	320	177	200	766
1996	Normal-Wet	1872	2088	1561	755	768	599	317	353	344	350	377	383	457	927	13841	9236
1997	Wet	1604	758	1265	1459	1454	1348	575	369	355	352	300	342	392	237	340	3365
1998	Wet	2340	3962	6330	6284	6103	4332	5561	412	507	564	390	342	597	302	49	394
1999	Normal-Wet	710	1128	1469	1305	470	215	293	315	315	295	332	351	289	100	69	671
2000	Normal-Wet	1391	421	1141	1466	531	244	250	272	284	300	367	398	413	210	171	291
2001	Normal-Dry	800	971	907	802	343	223	205	269	313	260	323	346	321	163	216	296
2002	Normal-Dry	691	939	870	753	324	168	202	213	258	253	288	316	289	178	164	269
2003	Normal-Wet	674	1010	1243	1281	433	226	230	228	268							
	Average	1949	2308	2182	2075	1555	1211	1111	318	336	362	366	444	508	599	1279	1617
	Wet	4180	4868	4693	4681	3950	3157	2840	406	435	521	502	650	865	1370	1493	2007
	Normal-Wet	1187	1191	1372	1222	576	335	292	321	326	331	357	374	368	341	3213	2993
	Normal-Dry	740	1041	918	811	337	202	226	255	277	263	283	331	314	151	168	929
	Dry	695	883	519	261	190	206	238	269	269	252	257	303	282	112	334	444

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 137: Simulated San Joaquin River Above Merced Confluence (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															4432	6836
1980	Wet	9143	6717	3495	2581	1841	2456	1665	606	688	478	329	260	270	309	486	705
1981	Normal-Dry	880	1032	516	570	410	310	389	410	367	314	207	432	436	447	1066	2800
1982	Wet	2888	3943	6763	9935	7461	2974	1281	754	1019	1140	2283	1009	3391	8415	9801	15247
1983	Wet	17232	15890	13666	13291	11525	12831	9751	1453	1638	2388	1834	2849	3286	6111	5783	880
1984	Normal-Wet	842	875	748	687	550	558	538	627	602	620	312	256	86	128	295	503
1985	Normal-Dry	610	805	726	626	488	482	545	603	572	407	285	242	280	402	545	5073
1986	Wet	7804	10486	7023	5109	3823	3330	1191	874	793	558	426	344	328	359	418	561
1987	Dry	865	871	662	513	461	478	552	544	423	299	398	335	390	282	479	447
1988	Dry	617	605	386	600	357	433	415	537	448	339	220	148	155	238	296	344
1989	Normal-Dry	395	438	323	705	352	370	434	484	434	425	403	373	397	394	359	425
1990	Dry	427	389	275	383	272	277	377	421	303	210	190	156	138	116	99	104
1991	Normal-Dry	366	802	425	208	158	162	232	257	176	142	118	94	122	118	163	485
1992	Dry	406	511	366	209	148	195	237	274	246	193	91	93	107	150	1556	1255
1993	Wet	1049	1035	1332	1215	1339	790	878	475	399	417	519	469	416	457	446	730
1994	Dry	591	479	367	296	223	271	333	403	351	281	262	215	221	292	1606	2445
1995	Wet	4811	8147	6534	6285	7525	3087	6348	957	786	652	598	443	408	523	634	1870
1996	Normal-Wet	2673	2989	1185	374	2337	1333	613	735	617	533	696	571	842	3105	16678	11741
1997	Wet	2220	852	566	361	1163	395	434	536	473	547	400	447	527	609	1070	8375
1998	Wet	4634	5161	8284	7317	7996	6375	7084	861	822	913	811	546	758	606	441	896
1999	Normal-Wet	831	943	755	365	412	402	505	583	528	588	543	502	365	290	415	1283
2000	Normal-Wet	1950	623	421	770	531	573	530	495	401	535	664	502	559	525	628	680
2001	Normal-Dry	1217	696	531	443	382	398	417	452	380	388	485	574	490	446	670	546
2002	Normal-Dry	648	577	340	292	299	312	379	378	351	352	461	558	386	732	655	547
2003	Normal-Wet	819	708	362	312	288	355	394	396	343							
	Average	2663	2732	2336	2227	2098	1631	1480	588	548	553	545	496	624	1089	2042	2699
	Wet	6223	6529	5958	5762	5334	4030	3579	814	827	887	900	796	1173	2174	2385	3658
	Normal-Wet	1423	1228	694	501	823	644	516	567	498	569	554	458	463	1012	4490	4208
	Normal-Dry	686	725	477	474	348	339	399	431	380	338	326	379	352	423	576	1646
	Dry	581	571	411	400	292	331	383	436	354	264	232	189	202	215	807	919

## Notes:

- Summarized from From SJR5Q flow and temperature model
- Simulation Period: Jan 1980 - Sep 2003
- Year type as defined by the Restoration Year Types
- Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 138: Simulated San Joaquin River Above Merced Confluence (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															2675	6039
1980	Wet	8155	6153	3099	2282	1969	2303	1674	690	813	659	593	542	509	384	494	911
1981	Normal-Dry	1439	1894	1365	1322	698	445	478	527	498	490	419	699	695	515	993	1639
1982	Wet	1870	3367	6415	9602	6277	2197	1316	875	1156	1184	1286	1271	3079	7656	9400	14218
1983	Wet	16676	16340	13819	13119	10750	12306	9671	1484	1640	2492	2048	3133	3525	5142	5498	1051
1984	Normal-Wet	1402	1745	1886	1912	980	690	659	745	736	799	567	550	374	205	304	715
1985	Normal-Dry	1213	1661	1574	1338	769	599	656	723	705	571	519	532	557	476	473	4135
1986	Wet	6805	9646	6609	4831	3458	3084	1316	993	925	744	679	635	590	422	425	760
1987	Dry	1446	1676	1152	676	597	605	661	652	555	459	624	631	664	348	483	629
1988	Dry	1177	1377	833	779	500	545	502	621	558	479	418	399	397	295	305	531
1989	Normal-Dry	966	1270	1126	1414	623	474	505	548	533	569	617	631	626	434	369	617
1990	Dry	982	1158	720	542	385	362	436	475	384	331	386	406	359	155	100	275
1991	Normal-Dry	921	1647	1252	924	416	245	293	314	264	256	314	344	343	157	165	663
1992	Dry	960	1289	813	367	261	277	296	327	317	304	287	343	328	189	1550	1210
1993	Wet	1422	1657	1589	1151	1432	1695	1096	528	470	531	716	720	650	498	447	898
1994	Dry	1148	1247	813	455	339	353	392	456	422	393	458	465	442	331	1535	1394
1995	Wet	4616	8672	6394	5437	5817	2248	6130	999	862	763	794	693	629	562	634	1916
1996	Normal-Wet	2991	2976	2169	1103	1112	1042	674	789	691	645	892	821	1091	1943	16318	10902
1997	Wet	2251	1378	1671	1740	1714	1560	783	589	544	659	596	692	748	648	1013	6474
1998	Wet	4309	5557	8166	6891	6858	4990	6030	913	893	1025	968	742	979	644	441	1058
1999	Normal-Wet	1371	1838	1975	1645	817	498	576	636	599	704	766	763	601	343	418	1477
2000	Normal-Wet	2558	995	1459	2047	951	536	589	552	472	646	860	752	780	564	630	849
2001	Normal-Dry	1782	1529	1336	1160	654	480	478	506	451	500	681	824	712	485	672	716
2002	Normal-Dry	1204	1402	1142	996	555	400	439	438	427	464	657	808	608	770	657	714
2003	Normal-Wet	1370	1589	1533	1556	688	435	453	455	414							
	Average	2877	3253	2871	2637	2026	1599	1504	660	639	681	702	756	838	1007	1917	2491
	Wet	5763	6596	5970	5631	4784	3798	3502	884	913	1007	960	1054	1339	1994	2294	3411
	Normal-Wet	2081	1889	1872	1677	965	691	624	681	625	698	771	721	712	764	4069	3996
	Normal-Dry	1254	1567	1299	1192	619	441	475	509	480	475	534	640	590	473	555	1414
	Dry	1143	1349	866	564	416	428	457	506	447	393	434	449	438	263	795	808

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 139: Simulated Chowchilla Bypass Diversion Flow (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28	
1979	Normal-Wet															2563	2958	
1980	Wet	2389	1725	1490	704	196	1030	539	0	1	1	1	0	0	1	0	0	
1981	Normal-Dry	1	1	1	0	1	0	0	1	1	0	0	0	0	0	1	747	
1982	Wet	864	1241	2825	4270	3505	1435	49	1	1	191	30	168	566	3086	3673	5104	
1983	Wet	5754	5470	6266	6809	5936	8555	4335	0	0	0	0	37	443	2275	307	0	
1984	Normal-Wet	0	0	0	0	1	0	1	1	1	1	1	0	1	1	1	1	
1985	Normal-Dry	1	1	0	0	0	0	0	1	1	0	0	0	1	0	9	3291	
1986	Wet	4825	3361	2068	1893	2107	1508	1	1	1	1	1	0	0	0	0	0	
1987	Dry	1	1	0	0	0	0	1	1	1	0	0	0	0	1	0	0	
1988	Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
1989	Normal-Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1990	Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1991	Normal-Dry	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1992	Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	2	
1993	Wet	2	2	6	249	107	92	51	0	0	0	0	0	0	0	0	0	
1994	Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	686	
1995	Wet	2587	3421	3625	3916	4425	1545	4152	10	0	0	0	0	0	0	0	2	
1996	Normal-Wet	457	352	2	2	1029	143	0	0	0	0	0	0	0	0	1267	8815	4240
1997	Wet	240	1	1	1	308	0	0	0	0	0	0	0	0	0	0	1	2670
1998	Wet	582	1836	3271	3308	3926	4259	4113	0	0	0	0	0	0	0	0	0	
1999	Normal-Wet	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	
2000	Normal-Wet	2	1	0	1	7	0	0	0	0	0	0	0	0	0	0	0	
2001	Normal-Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2002	Normal-Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2003	Normal-Wet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Average	738	726	815	881	898	774	552	1	0	8	1	9	44	288	642	821	
	Wet	2155	2132	2444	2644	2564	2303	1655	2	0	24	4	26	126	670	498	972	
	Normal-Wet	92	71	1	1	207	29	0	0	0	0	0	0	0	317	2276	1440	
	Normal-Dry	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	673	
	Dry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	138	

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 140: Simulated Chowchilla Bypass Diversion Flow (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															919	2399
1980	Wet	1642	1230	1098	471	271	870	539	1	1	1	1	1	1	1	1	1
1981	Normal-Dry	3	18	3	3	1	1	1	1	1	1	1	1	1	1	1	53
1982	Wet	59	724	2532	3814	2277	804	44	1	1	1	1	44	236	2244	3298	3984
1983	Wet	5566	5914	6322	6583	5130	8109	4304	1	1	46	184	341	256	1393	93	1
1984	Normal-Wet	3	4	86	131	2	1	1	1	1	1	1	1	1	1	1	1
1985	Normal-Dry	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	2314
1986	Wet	3991	2720	1707	1606	1757	1305	2	1	1	1	1	1	1	1	1	1
1987	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	1	0	1
1988	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1
1989	Normal-Dry	3	3	3	2	1	1	1	1	1	1	1	1	1	0	0	1
1990	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	0	0	1
1991	Normal-Dry	3	17	3	3	1	1	1	1	1	1	1	1	1	0	0	1
1992	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	0	28	2
1993	Wet	3	7	37	203	159	1006	53	1	1	1	1	1	1	0	0	1
1994	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	0	1	84
1995	Wet	2673	3859	3293	2902	2692	816	4137	11	1	1	1	1	1	0	0	2
1996	Normal-Wet	272	594	242	4	23	62	1	1	1	1	1	1	1	10	8505	3365
1997	Wet	275	4	122	322	296	352	1	1	1	1	1	1	1	0	1	847
1998	Wet	612	2117	3114	2757	2735	2372	3986	1	1	1	1	1	1	0	0	1
1999	Normal-Wet	3	4	213	158	1	1	1	1	1	1	1	1	1	0	0	26
2000	Normal-Wet	32	4	149	158	2	1	1	1	1	1	1	1	1	0	0	1
2001	Normal-Dry	3	3	3	3	1	1	1	1	1	1	1	1	1	0	0	1
2002	Normal-Dry	3	3	3	2	1	1	1	1	1	1	1	1	1	0	0	1
2003	Normal-Wet	3	3	152	134	1	1	1	1	1							
	Average	632	718	796	803	640	655	545	1	1	3	9	18	22	159	535	546
	Wet	1853	2072	2278	2332	1915	1954	1633	2	1	7	24	49	62	455	424	605
	Normal-Wet	77	151	173	113	7	16	1	1	1	1	1	1	1	3	1885	1158
	Normal-Dry	3	8	3	3	1	1	1	1	1	1	1	1	1	0	0	395
	Dry	3	3	2	1	1	1	1	1	1	1	1	1	1	0	6	18

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 141: Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															3618	4905
1980	Wet	6585	5116	2676	1863	1117	1763	969	110	84	41	38	18	15	39	17	16
1981	Normal-Dry	106	95	15	11	12	21	84	79	77	39	22	13	11	31	213	1818
1982	Wet	1894	2214	3701	7743	5971	2266	469	88	94	340	867	593	2820	6660	6940	9657
1983	Wet	10355	10158	10742	11049	9334	11451	6886	138	248	846	1159	1918	2055	4555	3848	58
1984	Normal-Wet	14	64	12	0	1	21	53	79	76	38	18	14	21	40	15	18
1985	Normal-Dry	26	29	23	9	2	31	63	78	74	43	17	14	16	35	221	4358
1986	Wet	6296	7946	6193	4134	3188	2506	313	84	76	55	18	14	15	39	16	4
1987	Dry	25	48	48	29	2	20	66	88	74	44	17	14	15	32	16	8
1988	Dry	19	37	10	5	8	34	87	113	95	64	20	15	15	33	17	7
1989	Normal-Dry	18	34	9	16	11	44	103	133	104	59	18	14	17	33	15	8
1990	Dry	17	32	45	48	50	69	126	152	124	84	26	21	36	40	18	26
1991	Normal-Dry	17	123	18	12	32	72	119	141	118	93	23	23	35	37	18	9
1992	Dry	12	19	16	51	75	135	171	211	194	145	23	22	36	46	355	317
1993	Wet	297	335	722	1055	1058	594	615	217	197	100	26	19	28	40	26	13
1994	Dry	17	21	36	51	33	88	168	193	190	113	35	26	28	36	302	1866
1995	Wet	3391	4403	5501	5714	6543	2124	5627	309	139	98	32	28	37	68	23	332
1996	Normal-Wet	1352	1590	365	1	1956	675	131	157	146	106	27	17	12	1725	12454	9010
1997	Wet	1339	58	1	6	815	108	156	220	208	157	31	42	117	109	178	3578
1998	Wet	1806	2733	5227	6621	6839	5859	5977	201	280	258	34	70	296	221	1	130
1999	Normal-Wet	5	23	18	8	9	105	209	216	176	96	17	14	14	35	15	135
2000	Normal-Wet	238	21	0	1	18	241	128	169	183	134	34	46	94	113	61	5
2001	Normal-Dry	14	21	12	6	13	110	122	189	214	127	28	22	37	49	9	3
2002	Normal-Dry	17	30	11	27	41	60	129	136	146	108	26	13	23	37	16	4
2003	Normal-Wet	17	34	9	3	19	142	149	153	177							
	Average	1412	1466	1475	1603	1548	1189	955	152	146	139	111	130	252	611	1184	1512
	Wet	3995	4120	4345	4773	4358	3334	2627	171	166	237	275	338	673	1467	1381	1723
	Normal-Wet	325	346	81	3	401	237	134	155	152	93	24	23	35	478	3233	2814
	Normal-Dry	33	55	15	14	19	56	104	126	122	78	22	16	23	37	82	1033
	Dry	18	31	31	37	34	69	124	151	136	90	24	20	26	37	141	445

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 142: Simulated Eastside Bypass Flow After Sand Slough Diversion (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1806	4032
1980	Wet	5778	4579	2284	1596	1259	1604	983	197	210	228	311	297	237	102	30	246
1981	Normal-Dry	710	965	859	728	272	152	172	198	210	218	240	289	254	86	108	605
1982	Wet	948	1670	3381	7354	4759	1562	512	209	233	251	289	848	2500	5832	6556	8565
1983	Wet	9991	10619	10844	10846	8542	10941	6831	164	249	959	1394	2214	2155	3581	3578	251
1984	Normal-Wet	623	966	1172	1195	377	150	173	199	212	220	283	313	291	103	28	255
1985	Normal-Dry	669	892	862	690	254	146	174	198	208	210	262	312	271	95	117	3362
1986	Wet	5385	7124	5807	3854	2829	2284	437	203	209	245	277	310	255	89	28	228
1987	Dry	648	837	486	177	137	146	173	197	208	206	258	315	269	84	23	213
1988	Dry	620	791	410	170	146	145	173	197	207	206	227	272	238	79	31	217
1989	Normal-Dry	632	875	803	694	254	146	173	197	207	205	241	276	224	63	30	222
1990	Dry	616	784	440	191	160	152	183	207	207	210	235	276	236	69	22	222
1991	Normal-Dry	615	981	834	697	262	153	178	200	207	212	231	278	235	66	22	212
1992	Dry	610	780	411	194	185	216	228	265	267	261	231	277	236	75	347	286
1993	Wet	726	939	922	987	1163	1618	708	271	270	218	234	279	238	71	30	206
1994	Dry	617	772	432	194	146	168	225	247	264	229	243	281	228	65	199	800
1995	Wet	3346	4900	5260	4779	4816	1301	5490	355	217	213	240	283	237	97	24	394
1996	Normal-Wet	1542	1776	1334	643	682	431	190	212	222	221	235	272	247	336	12025	8149
1997	Wet	1453	656	1151	1393	1358	1251	450	275	281	273	239	293	317	138	97	1631
1998	Wet	1661	3072	5098	6131	5670	4018	5440	257	353	374	183	292	494	250	1	321
1999	Normal-Wet	589	954	1280	1230	362	198	276	270	249	219	246	280	232	77	20	357
2000	Normal-Wet	878	354	1156	1236	368	213	185	228	256	250	242	301	294	142	65	200
2001	Normal-Dry	622	863	810	693	255	190	181	244	287	243	236	277	237	78	14	197
2002	Normal-Dry	616	864	804	701	268	145	188	197	223	224	235	268	223	66	20	196
2003	Normal-Wet	612	949	1216	1197	366	221	206	212	249							
	Average	1688	1998	2002	1982	1454	1148	997	225	238	265	296	396	441	506	1051	1307
	Wet	3661	4195	4343	4617	3800	3072	2606	241	253	345	396	602	804	1270	1293	1480
	Normal-Wet	908	1012	1235	1076	447	248	206	227	235	228	252	292	266	164	2789	2599
	Normal-Dry	644	907	829	700	261	155	177	206	224	218	241	284	241	75	52	799
	Dry	622	793	436	185	155	165	196	223	231	222	239	284	242	74	124	348

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 143: Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															2800	3915
1980	Wet	5550	4419	2663	1919	1129	1663	991	109	83	42	33	21	14	39	17	17
1981	Normal-Dry	104	94	13	12	10	18	84	77	77	39	22	11	12	30	187	1747
1982	Wet	1903	2118	3199	6040	5050	2236	533	85	94	256	1116	474	2497	5274	5457	7564
1983	Wet	8013	7843	8229	8492	7335	8560	5804	135	241	816	1072	1853	1826	3686	3470	74
1984	Normal-Wet	12	60	16	0	1	17	53	77	76	38	16	13	19	39	16	17
1985	Normal-Dry	23	28	23	10	1	28	63	75	74	44	16	12	15	34	180	3518
1986	Wet	4960	6536	5149	3780	2984	2395	349	82	75	56	19	13	14	38	18	4
1987	Dry	22	47	43	35	1	17	65	85	75	44	16	13	15	31	17	6
1988	Dry	20	36	9	6	6	32	86	110	96	64	22	13	15	32	18	7
1989	Normal-Dry	18	32	9	15	9	40	102	130	105	60	17	13	16	32	17	8
1990	Dry	17	29	40	51	47	65	125	150	125	85	32	16	35	40	18	25
1991	Normal-Dry	17	111	29	11	30	68	118	139	118	94	26	19	35	37	20	8
1992	Dry	12	16	14	47	72	131	170	208	194	149	28	18	36	46	351	301
1993	Wet	310	301	737	983	1092	568	645	214	199	103	28	18	24	41	27	12
1994	Dry	17	20	32	51	30	84	167	190	191	116	42	21	30	35	262	1807
1995	Wet	2910	3871	4586	4697	5348	2018	4652	333	140	98	37	22	39	68	23	302
1996	Normal-Wet	1170	1714	426	1	1744	696	128	156	146	107	33	14	15	1495	9398	7367
1997	Wet	1522	89	1	5	808	112	148	218	207	160	42	31	112	109	163	3033
1998	Wet	1928	2454	4324	5317	5559	4696	5170	191	278	263	50	52	278	230	1	124
1999	Normal-Wet	14	21	16	10	7	101	204	213	178	101	17	12	14	34	17	124
2000	Normal-Wet	242	33	0	1	6	247	127	165	183	135	45	36	91	113	65	5
2001	Normal-Dry	14	19	12	6	10	105	121	184	215	128	37	18	37	49	11	2
2002	Normal-Dry	17	28	11	22	40	56	129	134	145	110	32	11	23	36	18	4
2003	Normal-Wet	17	31	11	3	16	136	149	150	177							
	Average	1201	1248	1233	1313	1306	1004	841	150	145	135	122	118	227	503	940	1250
	Wet	3387	3454	3611	3904	3663	2781	2286	171	165	224	300	310	601	1185	1147	1391
	Normal-Wet	291	372	94	3	355	240	132	152	152	95	28	19	35	420	2459	2286
	Normal-Dry	32	52	16	13	17	53	103	123	122	79	25	14	23	36	72	881
	Dry	18	29	27	38	31	66	123	148	136	92	28	16	26	37	133	429

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 144: Simulated Eastside Bypass Flow Before San Joquin River Confluence (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1502	3215
1980	Wet	4910	4032	2333	1638	1263	1508	1002	193	209	225	300	301	246	109	27	231
1981	Normal-Dry	679	958	857	749	285	151	172	194	209	216	235	281	264	92	103	579
1982	Wet	916	1563	2962	5792	4192	1571	571	206	232	250	273	742	2222	4723	5179	6824
1983	Wet	7679	8164	8321	8362	6788	8196	5756	165	242	923	1293	2140	2029	2942	3282	253
1984	Normal-Wet	589	940	1159	1212	407	147	173	195	211	218	274	308	300	111	27	237
1985	Normal-Dry	640	885	865	708	269	143	174	195	207	208	253	305	283	102	97	2693
1986	Wet	4274	5942	4867	3585	2724	2241	473	200	207	243	274	304	268	95	27	210
1987	Dry	617	845	511	191	135	143	173	194	207	205	246	310	280	91	23	195
1988	Dry	594	801	436	177	145	142	173	194	206	204	222	266	249	85	29	201
1989	Normal-Dry	603	866	806	711	268	143	173	194	206	204	234	271	236	68	28	207
1990	Dry	588	790	464	202	158	149	183	204	206	208	232	268	248	75	21	204
1991	Normal-Dry	588	960	849	713	275	150	177	197	206	210	226	271	248	71	22	195
1992	Dry	581	787	439	198	184	212	228	261	265	262	229	269	248	80	344	261
1993	Wet	704	917	971	917	1189	1487	806	268	270	218	229	272	249	77	30	189
1994	Dry	589	780	457	202	144	165	225	243	262	229	242	272	242	70	180	750
1995	Wet	2757	4233	4459	4079	4146	1319	4507	376	217	211	237	274	252	103	24	354
1996	Normal-Wet	1453	1800	1401	696	684	422	188	210	220	220	234	265	257	319	9118	6774
1997	Wet	1595	641	1120	1385	1355	1265	474	272	279	273	242	277	325	144	98	1460
1998	Wet	1720	2794	4236	5000	4752	3606	4572	245	349	376	204	257	490	264	1	297
1999	Normal-Wet	568	928	1249	1266	389	196	273	266	249	219	241	274	242	83	20	327
2000	Normal-Wet	862	387	1081	1260	398	210	185	223	255	248	245	287	304	147	68	183
2001	Normal-Dry	594	854	812	710	269	187	181	238	287	241	238	269	249	84	14	180
2002	Normal-Dry	588	855	806	713	284	142	188	194	221	223	232	262	236	71	20	179
2003	Normal-Wet	583	923	1193	1226	393	216	207	208	248							
	Average	1470	1777	1777	1737	1296	1005	885	222	236	262	289	380	433	435	845	1092
	Wet	3069	3536	3659	3845	3301	2649	2270	241	251	340	382	571	760	1057	1083	1227
	Normal-Wet	868	1014	1223	1109	469	244	205	223	234	226	248	284	276	165	2147	2147
	Normal-Dry	615	896	833	717	275	153	178	202	223	217	236	277	253	81	47	672
	Dry	594	801	462	194	153	162	197	219	230	221	234	277	254	80	119	322

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 145: Simulated Sand Slough Bypass Flow (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															1189	2014
1980	Wet	4077	3314	1181	1048	905	888	254	110	83	40	38	18	14	38	17	15
1981	Normal-Dry	105	94	15	10	12	21	84	79	77	38	22	13	11	30	215	1136
1982	Wet	1028	1124	1125	3482	2347	760	345	88	93	212	640	585	2313	3675	3509	4506
1983	Wet	4700	4603	4588	4258	3336	3230	1871	138	248	849	1169	1912	1788	2594	3355	56
1984	Normal-Wet	14	63	11	0	0	21	53	79	76	37	18	14	20	39	14	17
1985	Normal-Dry	25	28	23	9	2	31	62	78	73	42	17	14	15	34	224	1378
1986	Wet	1724	4093	4042	2257	1067	896	296	84	75	54	18	14	15	39	16	4
1987	Dry	24	48	48	28	2	20	66	87	74	43	17	14	14	31	15	8
1988	Dry	18	36	10	5	8	35	87	113	95	64	20	15	14	32	16	7
1989	Normal-Dry	18	33	9	16	11	44	103	133	103	59	17	14	17	33	15	8
1990	Dry	17	32	45	47	50	69	126	152	124	84	26	21	36	40	18	26
1991	Normal-Dry	16	123	16	12	33	73	119	141	118	93	23	23	34	37	18	8
1992	Dry	12	18	16	51	75	136	171	211	194	145	23	22	36	45	327	317
1993	Wet	293	337	716	841	932	535	532	217	197	100	26	19	28	40	26	13
1994	Dry	17	21	36	51	33	88	168	193	190	113	34	26	28	36	304	1258
1995	Wet	1068	1034	1861	1863	2083	763	1122	255	138	97	31	28	36	68	23	333
1996	Normal-Wet	1104	1042	356	0	929	529	131	157	146	105	27	18	12	755	3739	4222
1997	Wet	990	53	0	5	508	107	156	220	208	157	29	43	117	109	179	1062
1998	Wet	1053	1146	1976	3362	2919	1911	1336	202	280	258	32	72	297	220	1	129
1999	Normal-Wet	5	22	18	8	9	105	209	216	176	96	17	14	14	35	15	134
2000	Normal-Wet	235	19	0	0	19	233	128	170	183	134	33	47	94	113	60	5
2001	Normal-Dry	14	21	12	6	13	110	122	190	213	127	27	22	37	48	9	3
2002	Normal-Dry	17	30	11	27	41	60	129	137	146	107	26	13	23	37	17	4
2003	Normal-Wet	17	34	9	3	20	142	149	153	177							
	Average	691	724	672	725	640	450	326	150	145	133	101	130	218	353	555	694
	Wet	1867	1963	1936	2140	1762	1136	739	164	165	221	248	336	576	848	891	765
	Normal-Wet	275	236	79	2	195	206	134	155	151	93	24	23	35	236	1004	1278
	Normal-Dry	33	55	14	13	19	56	103	126	122	78	22	17	23	37	83	423
	Dry	18	31	31	36	34	70	124	151	135	90	24	20	26	37	136	323

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 146: Simulated Sand Slough Bypass Flow (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979 Normal-Wet																	
1980	Wet	4053	3314	1184	1050	979	887	268	196	209	227	311	295	235	100	30	246
1981	Normal-Dry	710	947	856	723	269	151	171	197	209	217	239	288	252	84	107	555
1982	Wet	923	1129	1125	3482	2347	750	393	209	232	250	289	850	2308	3690	3510	4497
1983	Wet	4700	4603	4588	4258	3336	3184	1861	163	249	916	1267	1912	1864	2455	3353	250
1984	Normal-Wet	624	965	1108	1039	372	149	172	198	211	219	282	312	289	101	28	256
1985	Normal-Dry	669	889	858	685	252	145	173	198	207	209	261	311	268	93	119	1234
1986	Wet	1669	4074	4042	2257	1067	897	412	202	208	244	276	308	252	88	27	229
1987	Dry	648	833	481	174	136	145	172	197	207	205	257	314	267	83	23	214
1988	Dry	620	787	406	168	145	144	172	196	206	204	227	271	236	78	31	217
1989	Normal-Dry	632	872	800	690	251	145	172	196	206	204	240	275	221	62	30	222
1990	Dry	616	780	436	189	160	152	182	207	206	209	234	275	233	68	22	222
1991	Normal-Dry	615	966	829	692	259	152	177	199	206	211	230	278	232	65	22	212
1992	Dry	610	777	407	193	184	215	227	265	266	260	230	277	234	74	319	287
1993	Wet	725	934	880	820	987	694	574	270	269	217	233	278	235	70	30	207
1994	Dry	617	768	428	192	145	167	224	247	263	228	242	280	225	64	200	760
1995	Wet	1078	1037	1861	1863	2083	660	1092	300	216	213	239	283	234	96	24	396
1996	Normal-Wet	1362	1147	1035	632	659	370	189	211	221	221	234	272	245	331	3662	4222
1997	Wet	1099	654	1068	1062	1066	881	445	274	280	272	237	293	315	137	96	876
1998	Wet	1053	1146	1976	3362	2919	1736	1208	258	353	373	180	294	492	248	1	321
1999	Normal-Wet	589	953	1118	1019	357	198	275	269	249	218	246	279	229	76	20	354
2000	Normal-Wet	808	346	1051	1038	363	213	184	227	256	249	241	301	292	141	65	200
2001	Normal-Dry	622	861	806	688	252	190	180	244	286	242	235	277	235	76	14	197
2002	Normal-Dry	616	861	800	696	265	145	187	197	223	223	234	268	221	65	20	196
2003	Normal-Wet	612	948	1104	1022	361	221	205	212	249							
	Average	1095	1275	1219	1166	801	525	388	222	237	262	290	382	418	363	530	752
	Wet	1912	2111	2090	2269	1848	1211	781	234	252	339	379	564	742	861	884	878
	Normal-Wet	846	853	1078	932	438	232	205	226	234	227	251	291	264	162	949	1344
	Normal-Dry	644	900	825	696	258	155	177	205	223	218	240	283	238	74	52	436
	Dry	622	789	431	183	154	165	195	222	230	221	238	283	239	73	119	340

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 147: Simulated Mariposa Bypass Flow (cfs) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28	
1979	Normal-Wet															666	843	
1980	Wet	1255	806	73	7	3	26	99	1	1	1	1	1	1	1	1	0	
1981	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	
1982	Wet	4	18	338	1557	1066	81	2	1	1	1	3	2	110	1232	1308	2160	
1983	Wet	2361	2300	2470	2570	2063	2654	1599	1	1	2	3	4	65	669	524	1	
1984	Normal-Wet	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	
1985	Normal-Dry	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	603	
1986	Wet	1105	1678	1123	517	211	180	2	1	1	1	1	1	1	1	1	0	
1987	Dry	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	
1988	Dry	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	
1989	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1990	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1991	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1992	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1993	Wet	1	1	2	3	3	2	2	1	1	1	1	1	1	1	1	1	
1994	Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	
1995	Wet	253	580	902	958	1221	167	1068	1	1	1	1	1	1	1	1	1	
1996	Normal-Wet	12	31	1	0	185	2	1	1	1	1	1	1	1	81	2981	2011	
1997	Wet	8	0	0	0	2	1	1	1	1	1	1	1	1	1	1	399	
1998	Wet	41	125	808	1229	1310	984	1182	1	1	1	1	1	1	1	0	1	
1999	Normal-Wet	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	
2000	Normal-Wet	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	
2001	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	
2002	Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	
2003	Normal-Wet	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	2	
		Average	211	231	239	286	253	171	166	1	1	1	1	1	9	87	229	252
		Wet	629	689	715	855	735	512	494	1	1	1	1	1	23	238	230	321
		Normal-Wet	3	7	1	0	37	1	1	1	1	1	1	1	1	21	730	571
		Normal-Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	104	
		Dry	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2

Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 148: Simulated Mariposa Bypass Flow (cfs) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															179	705
1980	Wet	1003	643	14	4	3	25	99	1	1	1	1	1	1	1	1	1
1981	Normal-Dry	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	2
1982	Wet	2	4	240	1445	728	3	2	1	1	1	1	2	69	988	1192	1836
1983	Wet	2239	2439	2504	2512	1827	2500	1578	1	1	2	3	5	55	441	443	1
1984	Normal-Wet	2	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1
1985	Normal-Dry	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	469
1986	Wet	827	1424	1005	433	109	99	2	1	1	1	1	1	1	1	1	1
1987	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
1988	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
1989	Normal-Dry	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
1990	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
1991	Normal-Dry	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1
1992	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
1993	Wet	2	2	2	3	3	42	3	1	1	1	1	1	1	1	1	1
1994	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2
1995	Wet	276	732	837	684	703	55	1018	2	1	1	1	1	1	1	1	2
1996	Normal-Wet	3	4	3	2	2	2	1	1	1	1	1	1	1	2	2880	1754
1997	Wet	3	2	3	3	3	3	2	1	1	1	1	1	1	1	1	44
1998	Wet	10	162	769	1087	961	466	982	1	2	2	1	1	2	1	0	1
1999	Normal-Wet	2	2	3	3	2	1	1	1	1	1	1	1	1	1	1	2
2000	Normal-Wet	2	2	3	3	2	1	1	1	1	1	1	1	1	1	1	1
2001	Normal-Dry	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
2002	Normal-Dry	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
2003	Normal-Wet	2	2	3	3	2	1	1	1	1							
	Average	183	227	225	258	182	134	154	1	1	1	1	2	7	63	196	201
	Wet	545	676	672	771	542	399	461	1	1	2	2	2	17	179	205	236
	Normal-Wet	2	3	3	3	2	1	1	1	1	1	1	1	1	1	612	493
	Normal-Dry	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	79
	Dry	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: cfs = cubic feet per second, TAF = thousand acre-feet

**Table 149: Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	45
1980	Wet	45	45	46	47	48	50	54	54	54	55	55	55	55	54	50	47
1981	Normal-Dry	47	47	47	47	48	49	50	51	52	53	55	57	56	53	46	45
1982	Wet	44	45	45	46	48	51	53	53	54	54	57	57	57	53	46	45
1983	Wet	46	46	47	48	49	49	50	51	52	52	52	52	53	53	46	45
1984	Normal-Wet	45	45	46	46	48	49	50	51	52	53	54	55	56	53	47	46
1985	Normal-Dry	46	46	47	47	48	49	49	50	51	52	54	55	55	53	46	45
1986	Wet	45	45	46	47	48	50	52	53	53	54	54	54	54	54	49	48
1987	Dry	47	47	47	48	48	48	49	50	50	51	52	52	53	53	47	46
1988	Dry	46	46	46	46	47	47	48	49	50	51	52	52	53	53	47	46
1989	Normal-Dry	46	46	46	46	47	48	49	49	50	52	53	53	54	53	48	47
1990	Dry	47	47	47	48	48	49	49	50	51	52	53	53	55	52	47	47
1991	Normal-Dry	47	46	46	47	48	50	51	52	53	54	55	57	57	53	48	46
1992	Dry	46	46	46	47	48	48	49	50	51	53	54	54	56	53	46	44
1993	Wet	44	45	45	46	48	50	52	52	53	53	54	54	54	54	49	47
1994	Dry	47	47	47	48	48	49	49	50	51	52	54	55	54	51	46	44
1995	Wet	45	45	46	47	48	50	54	55	55	55	55	55	55	55	49	46
1996	Normal-Wet	45	45	46	46	48	51	52	53	54	54	55	56	57	54	46	45
1997	Wet	45	45	46	46	47	51	52	53	53	54	55	55	56	54	48	46
1998	Wet	46	47	47	48	50	53	55	56	56	56	56	56	57	55	48	45
1999	Normal-Wet	45	46	46	47	47	48	49	50	51	52	53	53	55	55	49	47
2000	Normal-Wet	46	46	47	47	48	49	50	51	52	53	53	54	55	53	49	48
2001	Normal-Dry	47	47	47	47	48	49	49	50	51	52	53	54	55	54	47	46
2002	Normal-Dry	47	47	48	48	48	49	50	51	51	52	53	54	55	55	49	48
2003	Normal-Wet	48	48	48	48	49	50	51	51	52							
	Average	46	46	46	47	48	49	51	51	52	53	54	54	55	53	47	46
	Wet	45	45	46	47	48	50	53	53	54	54	55	55	55	54	48	46
	Normal-Wet	46	46	47	47	48	49	50	51	52	53	54	54	56	54	48	46
	Normal-Dry	46	46	47	47	48	49	50	50	51	53	54	55	55	53	47	46
	Dry	46	47	47	47	48	48	49	50	50	52	53	54	54	52	47	45

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 150: Simulated Temperature at Millerton Release (Head of Reach 1) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															46	44
1980	Wet	44	45	45	46	48	50	53	54	54	55	56	57	57	54	49	46
1981	Normal-Dry	46	46	46	47	48	49	51	52	54	58	59	58	58	54	46	44
1982	Wet	44	44	45	45	47	50	52	53	54	55	56	56	57	53	45	45
1983	Wet	45	45	47	48	49	49	50	51	52	53	54	55	56	54	46	45
1984	Normal-Wet	45	45	46	47	49	50	52	53	54	57	58	58	57	54	48	46
1985	Normal-Dry	46	46	47	48	49	50	51	52	53	57	59	57	56	53	46	45
1986	Wet	45	45	45	46	47	50	52	52	53	55	57	58	58	55	49	47
1987	Dry	46	46	47	47	48	49	49	51	52	56	59	59	58	54	47	45
1988	Dry	45	46	46	47	47	48	49	51	53	57	60	59	58	54	47	46
1989	Normal-Dry	46	46	46	47	48	50	50	52	54	57	59	58	58	54	49	47
1990	Dry	47	47	48	48	48	49	50	52	54	59	60	58	57	53	48	47
1991	Normal-Dry	47	46	47	48	50	52	53	54	56	58	59	60	58	54	48	46
1992	Dry	46	46	47	47	48	49	50	52	54	59	61	60	58	54	46	44
1993	Wet	44	45	45	46	48	50	52	53	54	55	56	58	57	55	48	47
1994	Dry	46	46	47	48	48	49	50	51	53	57	58	57	55	52	46	44
1995	Wet	45	45	46	47	47	49	53	54	55	55	56	57	58	56	49	45
1996	Normal-Wet	45	45	46	47	48	49	51	52	53	56	58	58	57	53	45	45
1997	Wet	44	45	46	47	49	53	56	57	58	59	60	60	59	55	48	45
1998	Wet	45	46	46	47	49	51	54	55	56	56	58	58	58	55	48	45
1999	Normal-Wet	45	46	46	47	49	50	51	52	54	56	60	60	60	56	50	46
2000	Normal-Wet	46	46	47	48	50	51	52	53	54	57	58	58	57	54	49	47
2001	Normal-Dry	46	46	47	48	49	50	51	53	54	58	60	60	59	55	47	46
2002	Normal-Dry	47	47	48	48	49	50	51	52	54	57	60	60	59	56	49	47
2003	Normal-Wet	47	48	48	49	50	51	52	53	54							
	Average	46	46	46	47	48	50	51	53	54	57	58	58	58	54	47	46
	Wet	45	45	46	47	48	50	53	54	54	56	57	57	58	55	48	46
	Normal-Wet	45	46	46	47	49	50	51	53	54	57	59	59	58	54	48	46
	Normal-Dry	46	46	47	48	49	50	51	52	54	58	59	59	58	54	47	46
	Dry	46	46	47	47	48	49	50	51	53	57	59	59	57	53	47	45

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 151: Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															44	47
1980	Wet	49	50	52	54	57	59	72	80	74	69	62	57	54	49	47	55
1981	Normal-Dry	58	60	67	69	73	80	83	79	76	66	60	58	54	49	46	48
1982	Wet	49	49	50	51	55	59	74	79	72	65	56	53	53	52	46	47
1983	Wet	49	49	50	51	54	55	61	76	77	70	63	58	51	52	47	52
1984	Normal-Wet	62	64	65	68	75	78	83	80	77	65	59	55	50	48	45	53
1985	Normal-Dry	60	60	69	69	74	80	82	78	72	67	61	54	50	48	48	48
1986	Wet	49	52	52	54	56	61	75	79	73	66	62	58	55	48	46	54
1987	Dry	59	62	69	74	75	78	79	79	75	70	61	57	53	50	47	56
1988	Dry	62	67	70	67	71	77	83	81	77	69	63	58	52	48	46	53
1989	Normal-Dry	60	64	71	71	73	78	82	80	74	68	62	60	56	48	47	50
1990	Dry	58	66	71	72	75	77	83	81	76	71	62	59	54	46	46	57
1991	Normal-Dry	58	57	65	67	72	77	83	80	79	75	64	60	55	48	45	54
1992	Dry	62	65	68	71	77	79	80	82	77	72	65	60	55	49	49	52
1993	Wet	58	59	55	55	58	62	73	80	78	72	66	59	54	49	48	54
1994	Dry	64	65	68	70	73	78	83	82	77	70	60	54	50	47	50	48
1995	Wet	51	53	52	52	55	59	61	77	79	71	66	64	60	54	51	55
1996	Normal-Wet	52	53	59	62	59	70	84	84	77	69	59	58	57	52	47	49
1997	Wet	53	64	65	70	64	77	83	83	79	70	65	59	58	50	50	49
1998	Wet	51	54	53	55	56	60	64	83	80	68	60	56	55	48	46	53
1999	Normal-Wet	58	61	60	69	72	79	83	80	79	73	65	61	55	49	50	55
2000	Normal-Wet	58	64	70	69	72	79	81	82	76	69	61	54	50	49	49	52
2001	Normal-Dry	57	67	65	69	77	80	82	82	78	72	65	62	57	49	49	53
2002	Normal-Dry	59	62	70	69	73	80	83	81	77	70	62	60	57	51	51	55
2003	Normal-Wet	61	64	65	66	73	80	84	81	79							
	Average	57	60	63	64	68	73	78	80	76	69	62	58	54	49	47	52
	Wet	51	54	54	55	57	61	70	80	76	69	63	58	55	50	48	52
	Normal-Wet	58	61	64	67	70	77	83	81	78	69	61	57	53	50	47	51
	Normal-Dry	59	62	68	69	74	79	82	80	76	69	62	59	55	49	47	51
	Dry	61	65	69	71	74	78	82	81	76	70	62	58	53	48	48	53

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 152: Simulated Temperature at San Joaquin River At Gravelly Ford (Head of Reach 2A) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															44	48
1980	Wet	49	51	53	54	57	60	71	76	70	65	59	56	55	50	47	52
1981	Normal-Dry	52	53	55	57	66	75	78	75	72	63	59	58	55	50	46	49
1982	Wet	50	50	50	51	56	59	72	75	69	63	57	54	53	52	45	47
1983	Wet	49	48	50	51	54	55	60	74	72	64	58	55	51	51	48	50
1984	Normal-Wet	53	53	53	55	67	74	79	76	72	63	59	56	53	49	45	51
1985	Normal-Dry	52	52	57	58	67	75	77	74	69	64	60	55	53	49	48	48
1986	Wet	49	52	52	55	56	60	72	75	69	63	59	57	56	50	47	52
1987	Dry	52	53	60	67	70	73	75	75	70	66	59	57	55	51	47	52
1988	Dry	52	55	59	61	67	72	78	76	72	65	60	58	54	50	46	51
1989	Normal-Dry	52	54	57	58	66	73	78	76	70	65	60	59	57	49	47	49
1990	Dry	52	56	61	66	70	74	80	78	72	67	60	59	55	48	47	54
1991	Normal-Dry	52	52	56	58	66	73	80	77	75	69	61	59	56	49	45	52
1992	Dry	53	54	59	65	72	75	76	77	72	67	62	59	56	50	50	52
1993	Wet	54	54	54	55	58	60	72	77	73	66	60	57	54	50	48	51
1994	Dry	55	54	59	64	69	74	79	77	72	65	58	54	52	48	51	50
1995	Wet	50	52	52	52	55	59	61	75	74	66	61	60	58	54	51	54
1996	Normal-Wet	51	52	54	57	66	72	79	79	72	65	58	58	57	52	47	49
1997	Wet	52	55	53	57	60	64	75	79	75	66	63	59	58	50	51	51
1998	Wet	51	52	53	55	56	61	63	80	75	64	58	56	56	49	47	51
1999	Normal-Wet	51	52	51	56	65	74	78	76	74	66	61	60	57	51	50	54
2000	Normal-Wet	54	55	56	57	66	76	77	77	72	65	59	55	53	51	49	50
2001	Normal-Dry	52	55	54	58	70	75	78	77	73	67	62	61	57	50	49	51
2002	Normal-Dry	52	53	58	57	66	75	79	76	72	65	60	60	58	52	51	53
2003	Normal-Wet	53	54	54	55	66	75	79	77	74							
	Average	52	53	55	58	64	69	75	76	72	65	60	58	55	50	48	51
	Wet	51	52	52	54	56	60	68	76	72	64	59	57	55	51	48	51
	Normal-Wet	52	53	54	56	66	74	78	77	73	65	59	58	55	51	47	51
	Normal-Dry	52	53	56	58	67	74	78	76	72	65	60	59	56	50	48	50
	Dry	53	54	60	65	69	74	77	77	72	66	60	58	54	49	48	52

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 153: Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															45	50
1980	Wet	58	63	57	57	61	63	76	83	76	71	64	58	55	49	47	58
1981	Normal-Dry	60	62	69	72	76	83	85	82	80	68	61	60	55	49	46	49
1982	Wet	50	51	53	68	68	63	78	82	75	67	57	53	51	49	45	55
1983	Wet	61	61	66	68	73	68	68	80	79	72	64	59	51	51	49	54
1984	Normal-Wet	65	67	67	70	78	81	86	83	80	67	60	56	50	48	45	55
1985	Normal-Dry	62	62	73	71	77	83	84	82	75	69	63	54	51	47	49	49
1986	Wet	50	64	68	65	60	67	79	82	75	69	63	59	56	48	47	57
1987	Dry	62	64	72	77	78	81	82	82	78	74	62	58	53	50	48	59
1988	Dry	65	71	73	70	74	79	86	84	80	72	64	58	52	49	47	55
1989	Normal-Dry	63	66	74	73	76	80	85	83	77	71	64	62	57	49	48	52
1990	Dry	60	69	74	74	77	80	85	83	78	73	62	61	54	47	48	59
1991	Normal-Dry	60	58	67	69	74	79	86	82	82	76	65	61	56	48	45	56
1992	Dry	64	68	71	74	79	81	82	85	80	74	66	61	56	49	50	54
1993	Wet	61	63	58	58	63	66	77	83	80	73	68	60	54	50	50	56
1994	Dry	67	67	71	72	76	80	85	84	79	71	61	54	50	47	51	50
1995	Wet	52	55	65	68	75	63	65	81	81	73	67	66	61	54	52	57
1996	Normal-Wet	54	56	63	67	65	75	86	86	79	70	60	60	58	53	49	58
1997	Wet	57	67	67	73	69	80	85	85	81	71	67	60	59	50	51	50
1998	Wet	53	56	61	73	73	76	69	86	81	69	61	57	57	48	48	55
1999	Normal-Wet	61	63	62	72	75	81	85	82	82	75	67	63	56	50	51	57
2000	Normal-Wet	59	66	73	71	75	82	83	84	79	70	62	55	51	50	50	54
2001	Normal-Dry	60	70	67	72	80	81	84	84	81	74	67	63	57	50	50	56
2002	Normal-Dry	62	65	73	71	76	82	85	84	79	71	63	61	58	52	52	57
2003	Normal-Wet	64	66	67	68	75	82	86	83	81							
	Average	60	63	67	70	73	76	81	83	79	71	63	59	55	49	48	55
	Wet	56	60	62	66	68	68	75	83	79	71	64	59	56	50	49	55
	Normal-Wet	61	64	67	70	74	80	85	84	80	71	62	59	54	50	48	55
	Normal-Dry	61	64	70	71	76	81	85	83	79	71	64	60	56	49	48	53
	Dry	64	68	72	73	77	80	84	83	79	73	63	58	53	49	49	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 154: Simulated Temperature at San Joaquin River Below Chowchilla Bypass Diversion (Head Reach 2B) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	51
1980	Wet	58	63	58	58	60	64	75	80	74	67	61	56	54	50	47	55
1981	Normal-Dry	54	55	59	61	71	80	83	80	76	65	60	59	55	49	46	51
1982	Wet	52	51	53	69	68	63	77	80	72	65	57	53	51	49	45	55
1983	Wet	61	61	66	68	73	69	68	79	76	68	61	58	50	50	49	52
1984	Normal-Wet	56	56	56	58	72	78	84	80	77	65	59	56	52	49	45	53
1985	Normal-Dry	54	54	61	61	71	80	82	79	72	66	60	54	53	48	50	49
1986	Wet	51	64	68	65	61	67	77	79	72	65	60	57	56	49	47	54
1987	Dry	55	56	64	72	74	78	79	79	74	69	60	57	54	51	47	55
1988	Dry	55	59	64	65	71	77	83	81	76	68	61	57	53	50	47	52
1989	Normal-Dry	55	57	61	62	71	78	82	81	74	67	61	60	56	48	48	51
1990	Dry	54	59	65	70	74	78	84	82	76	70	60	59	54	47	48	56
1991	Normal-Dry	54	54	59	62	70	77	84	80	79	72	62	59	56	49	45	54
1992	Dry	55	57	63	70	76	79	80	82	77	70	63	59	56	49	50	54
1993	Wet	57	57	57	58	62	64	76	81	77	69	62	57	54	50	50	53
1994	Dry	58	57	64	68	73	78	84	82	76	68	59	54	51	48	52	52
1995	Wet	52	54	65	68	75	64	65	80	78	69	63	62	59	54	52	57
1996	Normal-Wet	53	55	57	60	70	77	84	84	76	67	58	59	57	52	48	58
1997	Wet	56	58	56	61	65	69	80	83	79	68	64	59	58	50	52	52
1998	Wet	53	55	61	73	73	80	69	84	79	66	59	56	57	48	47	53
1999	Normal-Wet	54	55	53	60	70	78	83	81	79	70	63	61	56	50	51	55
2000	Normal-Wet	55	57	60	60	70	81	81	82	76	67	60	55	52	51	50	52
2001	Normal-Dry	54	59	57	62	75	79	82	82	78	70	64	61	57	50	50	53
2002	Normal-Dry	55	56	62	61	71	79	84	81	76	67	61	60	58	52	52	54
2003	Normal-Wet	56	57	57	58	70	80	84	81	78							
	Average	55	57	60	64	70	75	80	81	76	68	61	58	55	50	48	53
	Wet	55	58	61	65	67	67	73	81	76	67	61	57	55	50	49	54
	Normal-Wet	55	56	57	60	71	79	83	82	77	67	60	58	54	51	48	54
	Normal-Dry	54	56	60	62	71	79	83	81	76	68	61	59	56	49	48	52
	Dry	56	58	64	69	74	78	82	81	76	69	61	57	54	49	49	54

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 155: Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															49	51
1980	Wet	53	56	62	62	64	69	76	78	73	67	61	55	52	46	45	54
1981	Normal-Dry	58	63	69	70	72	79	80	78	76	65	58	56	52	46	45	50
1982	Wet	53	53	55	58	63	67	78	79	73	65	56	51	50	49	48	51
1983	Wet	54	54	55	56	59	62	67	80	78	63	57	52	50	50	50	53
1984	Normal-Wet	59	64	67	67	73	77	83	80	77	64	57	53	47	46	42	52
1985	Normal-Dry	59	62	71	69	71	77	79	76	73	66	60	52	48	45	47	50
1986	Wet	55	56	56	62	66	70	79	78	71	66	60	54	54	46	44	54
1987	Dry	60	63	69	72	74	77	79	79	76	70	60	56	52	48	46	56
1988	Dry	61	67	69	66	70	75	81	79	74	68	60	55	50	47	45	54
1989	Normal-Dry	59	64	71	69	72	75	79	79	75	66	59	57	54	45	46	51
1990	Dry	58	65	70	70	71	76	81	80	76	68	58	57	52	44	46	55
1991	Normal-Dry	57	61	67	69	71	75	82	80	78	70	59	58	53	46	44	55
1992	Dry	63	66	71	72	76	78	80	81	76	69	62	55	51	46	48	54
1993	Wet	63	65	61	61	66	71	79	80	74	68	62	55	50	46	46	52
1994	Dry	63	63	68	69	71	77	81	80	76	67	56	52	48	45	50	51
1995	Wet	54	57	60	59	61	67	68	79	76	68	62	62	59	51	49	57
1996	Normal-Wet	56	58	67	70	67	74	80	80	74	65	56	57	56	51	50	52
1997	Wet	57	67	66	68	71	75	80	80	77	66	64	57	55	47	49	51
1998	Wet	55	61	56	59	58	62	71	79	75	65	60	55	56	46	45	53
1999	Normal-Wet	57	61	60	69	69	76	82	78	76	69	63	61	54	49	50	55
2000	Normal-Wet	59	66	72	68	71	77	78	80	75	67	58	53	50	49	48	51
2001	Normal-Dry	57	69	66	70	78	78	79	79	76	69	63	59	54	46	48	53
2002	Normal-Dry	59	62	70	67	70	77	81	79	78	68	60	58	56	51	51	55
2003	Normal-Wet	61	65	67	65	71	77	81	78	76							
	Average	58	62	65	66	69	74	78	79	75	67	60	56	52	47	47	53
	Wet	56	59	59	61	64	68	75	79	75	66	60	55	53	48	47	53
	Normal-Wet	58	63	66	68	70	77	81	79	76	66	59	56	52	49	48	52
	Normal-Dry	58	63	69	69	73	77	80	78	76	67	60	57	53	47	47	52
	Dry	61	65	70	70	72	76	80	80	76	69	59	55	50	46	47	54

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 156: Simulated Temperature at San Joaquin River Below Mendota Pool (Head of Reach 3) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															49	52
1980	Wet	53	56	62	62	64	69	76	79	74	68	61	55	53	47	45	55
1981	Normal-Dry	56	58	62	65	72	80	81	79	76	65	59	58	54	47	44	52
1982	Wet	54	54	55	58	63	68	78	79	73	66	56	52	50	49	48	51
1983	Wet	54	54	55	56	59	62	67	80	78	64	57	52	50	50	50	53
1984	Normal-Wet	58	59	59	62	73	78	83	80	77	64	58	55	50	46	42	53
1985	Normal-Dry	57	57	65	65	71	78	79	77	74	66	60	53	50	45	48	51
1986	Wet	56	56	56	62	66	70	79	79	72	66	60	56	55	46	44	54
1987	Dry	57	59	67	73	75	78	79	80	76	70	60	56	53	48	46	56
1988	Dry	59	62	67	66	71	76	82	79	75	69	61	56	51	47	45	53
1989	Normal-Dry	57	60	65	66	72	76	79	79	75	67	60	59	56	46	46	51
1990	Dry	56	62	68	71	72	76	81	80	77	69	59	58	53	44	46	56
1991	Normal-Dry	56	56	62	65	71	76	82	80	78	71	61	59	54	47	44	55
1992	Dry	59	61	67	72	76	78	81	81	76	70	63	58	53	46	48	54
1993	Wet	59	60	60	62	66	69	79	80	75	69	63	56	52	47	46	52
1994	Dry	61	60	66	69	72	77	81	80	77	67	58	53	49	45	50	54
1995	Wet	54	56	60	59	61	67	68	79	77	68	63	63	58	51	50	57
1996	Normal-Wet	55	57	60	63	68	76	81	81	75	66	57	58	57	51	50	52
1997	Wet	57	61	58	64	69	73	80	81	77	67	64	58	56	47	49	52
1998	Wet	55	61	56	59	58	62	70	79	76	66	59	56	56	46	45	53
1999	Normal-Wet	56	57	56	64	70	77	82	79	77	70	63	61	55	49	50	55
2000	Normal-Wet	56	60	63	63	70	78	79	80	75	67	59	54	50	49	48	52
2001	Normal-Dry	56	63	60	66	77	78	79	79	77	69	63	61	55	46	48	54
2002	Normal-Dry	57	58	66	64	71	77	81	79	78	68	60	59	57	51	51	55
2003	Normal-Wet	59	60	60	61	70	78	81	79	77							
	Average	57	59	62	64	69	74	79	80	76	67	60	57	53	47	47	53
	Wet	55	57	58	60	63	68	75	79	75	67	60	56	54	48	47	53
	Normal-Wet	56	58	59	63	70	77	81	80	76	67	59	57	53	49	48	53
	Normal-Dry	57	59	63	65	72	78	80	79	76	68	61	58	54	47	47	53
	Dry	58	61	67	70	73	77	81	80	76	69	60	56	52	46	47	54

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 157: Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	52
1980	Wet	54	57	63	65	67	72	79	80	75	69	62	56	53	47	46	56
1981	Normal-Dry	59	63	70	72	76	82	83	81	78	66	60	58	53	47	45	51
1982	Wet	55	56	57	61	66	72	80	81	75	67	57	52	50	49	48	52
1983	Wet	55	55	57	58	63	66	71	76	33	59	58	53	49	50	49	53
1984	Normal-Wet	63	65	68	70	79	81	85	82	79	65	59	54	48	47	43	54
1985	Normal-Dry	61	63	73	71	76	81	82	79	75	67	61	53	49	46	48	52
1986	Wet	57	58	58	64	69	74	81	81	74	68	62	57	54	46	45	55
1987	Dry	61	64	71	75	78	80	81	81	77	71	61	56	52	49	47	58
1988	Dry	63	69	71	68	74	78	84	81	77	70	62	56	50	47	46	55
1989	Normal-Dry	60	65	73	72	75	78	81	81	76	69	61	59	55	46	47	51
1990	Dry	59	67	72	73	74	78	83	82	78	70	60	58	53	45	47	57
1991	Normal-Dry	59	62	68	70	74	78	84	82	80	72	62	59	54	47	44	56
1992	Dry	64	67	72	73	79	80	81	83	77	71	64	58	53	47	49	55
1993	Wet	56	61	64	65	70	75	79	82	77	70	64	56	51	47	47	53
1994	Dry	65	65	70	71	74	79	83	82	78	69	58	52	49	45	51	53
1995	Wet	56	58	62	62	65	71	74	82	79	70	64	64	60	52	51	58
1996	Normal-Wet	58	61	67	71	63	77	83	83	76	67	57	58	56	51	50	53
1997	Wet	58	69	67	72	75	80	82	82	79	68	65	58	53	45	47	52
1998	Wet	56	63	58	62	61	67	75	83	78	61	59	52	42	46	46	46
1999	Normal-Wet	57	63	62	71	74	79	84	81	79	72	65	61	55	50	51	56
2000	Normal-Wet	53	58	73	72	76	80	81	82	76	68	59	54	50	47	47	54
2001	Normal-Dry	59	70	67	72	81	80	81	81	78	70	64	60	55	47	49	56
2002	Normal-Dry	61	64	72	69	74	79	83	81	79	70	61	59	56	51	52	57
2003	Normal-Wet	63	66	68	68	74	79	83	80	78							
	Average	59	63	67	69	72	77	81	81	76	68	61	57	52	48	48	54
	Wet	56	60	61	64	67	72	78	81	71	66	61	56	52	48	48	53
	Normal-Wet	59	63	68	70	73	79	83	81	78	68	60	57	52	49	47	54
	Normal-Dry	60	64	70	71	76	80	82	81	78	69	61	58	54	48	48	54
	Dry	62	66	71	72	76	79	82	82	77	70	61	56	51	47	48	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 158: Simulated Temperature at San Joaquin River Below Sack Dam (Head of Reach 4A) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	53
1980	Wet	54	57	63	65	67	72	79	81	75	69	62	56	54	47	46	55
1981	Normal-Dry	57	59	64	67	74	82	83	81	78	66	60	58	54	47	45	53
1982	Wet	56	56	57	61	66	72	80	81	75	67	57	52	50	49	48	52
1983	Wet	55	55	57	58	63	66	71	76	33	60	59	53	49	49	49	53
1984	Normal-Wet	60	61	62	64	75	80	85	82	79	66	59	55	49	47	43	53
1985	Normal-Dry	59	59	67	67	74	80	82	79	75	67	61	53	50	46	49	52
1986	Wet	57	58	58	64	69	74	81	81	74	67	61	57	55	47	45	55
1987	Dry	59	60	69	75	77	80	81	81	77	71	61	56	53	49	47	57
1988	Dry	61	64	68	67	73	78	84	81	77	70	62	57	51	48	46	54
1989	Normal-Dry	58	62	68	68	74	78	82	81	76	68	61	59	56	47	47	51
1990	Dry	57	63	69	72	74	78	83	82	78	70	60	59	53	45	47	56
1991	Normal-Dry	58	58	64	67	73	78	84	82	80	72	62	59	55	48	44	55
1992	Dry	61	62	68	73	78	80	82	83	77	71	64	58	53	47	49	55
1993	Wet	61	62	63	65	69	73	81	82	77	70	64	57	52	48	47	53
1994	Dry	62	62	67	71	74	79	83	82	78	69	58	53	49	46	51	55
1995	Wet	56	58	62	62	65	72	74	82	79	70	64	63	59	52	51	58
1996	Normal-Wet	57	60	63	65	69	75	83	83	76	67	57	58	57	51	50	53
1997	Wet	58	64	61	67	72	75	82	83	79	68	65	58	57	46	47	53
1998	Wet	56	63	58	62	61	67	75	83	79	67	60	56	53	46	46	54
1999	Normal-Wet	58	59	57	66	72	80	85	81	79	72	64	61	55	50	50	56
2000	Normal-Wet	57	63	66	65	73	80	81	82	77	68	59	54	50	47	47	53
2001	Normal-Dry	57	65	62	68	80	80	81	81	78	71	64	61	55	48	49	55
2002	Normal-Dry	59	60	68	66	73	79	84	81	80	70	61	59	57	52	52	56
2003	Normal-Wet	60	62	62	63	72	80	83	81	78							
	Average	58	61	64	66	72	77	81	81	76	69	61	57	53	48	48	54
	Wet	57	59	60	63	66	71	78	81	71	67	61	56	54	48	47	54
	Normal-Wet	58	61	62	65	72	79	83	82	78	68	60	57	53	49	48	53
	Normal-Dry	58	60	66	67	75	80	83	81	78	69	61	58	54	48	48	54
	Dry	60	62	68	72	75	79	83	82	78	70	61	57	52	47	48	55

**Notes:**

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 159: Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	54
1980	Wet	58	62	66	70	73	77	83	83	77	71	64	57	54	48	47	57
1981	Normal-Dry	61	64	71	73	77	84	85	83	80	68	61	59	54	48	45	54
1982	Wet	59	61	62	68	74	78	83	83	77	68	58	52	50	48	46	54
1983	Wet	59	59	63	64	70	76	79	83	74	68	62	56	49	49	48	54
1984	Normal-Wet	66	67	68	70	79	82	87	84	81	67	60	55	49	46	43	55
1985	Normal-Dry	64	64	74	72	77	83	85	83	76	69	61	53	50	46	49	55
1986	Wet	61	64	64	70	75	80	84	83	76	69	63	58	55	47	45	56
1987	Dry	63	65	73	77	78	82	82	82	78	73	61	56	52	49	47	59
1988	Dry	65	71	72	69	75	80	86	83	79	71	63	57	51	48	46	55
1989	Normal-Dry	62	66	74	73	77	81	84	83	77	70	62	60	56	47	47	52
1990	Dry	60	68	73	74	76	80	86	84	79	72	61	59	53	45	47	58
1991	Normal-Dry	61	63	68	71	75	81	86	83	81	73	63	59	55	48	45	56
1992	Dry	65	68	72	75	80	81	83	84	79	72	64	59	53	47	49	56
1993	Wet	65	67	68	71	75	80	84	83	80	72	66	58	52	48	48	54
1994	Dry	66	67	70	72	76	82	86	84	79	70	59	53	49	46	52	56
1995	Wet	60	63	67	67	72	78	83	85	81	72	65	65	60	53	51	59
1996	Normal-Wet	61	67	70	71	74	81	85	85	78	69	58	59	56	51	51	55
1997	Wet	61	70	67	73	78	81	85	85	81	70	66	59	57	48	50	54
1998	Wet	60	66	62	70	69	76	84	86	81	68	60	56	55	46	46	55
1999	Normal-Wet	61	64	63	73	75	82	86	83	81	73	66	62	55	50	51	57
2000	Normal-Wet	60	66	73	72	76	83	83	84	78	69	60	54	50	50	49	54
2001	Normal-Dry	61	71	68	73	82	82	83	83	80	72	65	61	55	48	49	57
2002	Normal-Dry	63	65	72	70	76	82	86	84	81	71	62	60	57	52	52	58
2003	Normal-Wet	65	67	69	69	76	82	85	83	80							
	Average	62	66	69	71	76	81	84	84	79	70	62	58	53	48	48	56
	Wet	60	64	65	69	73	78	83	84	78	70	63	58	54	48	48	55
	Normal-Wet	63	66	69	71	76	82	85	84	80	70	61	57	53	49	48	55
	Normal-Dry	62	66	71	72	77	82	85	83	79	70	63	59	54	48	48	55
	Dry	64	68	72	73	77	81	85	84	79	72	62	57	52	47	48	57

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 160: Simulated Temperature at San Joaquin River Below Sand Slough Control Structure (Head of Reach 4B1) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	55
1980	Wet	58	62	66	70	73	77	83	83	77	71	64	57	54	48	47	57
1981	Normal-Dry	60	63	69	72	76	84	85	83	80	68	61	58	54	48	45	54
1982	Wet	60	61	62	68	74	79	83	83	76	68	58	52	50	48	46	54
1983	Wet	59	59	63	64	70	76	79	83	74	68	62	56	49	49	48	54
1984	Normal-Wet	65	66	67	69	78	82	86	84	80	67	60	55	49	46	43	55
1985	Normal-Dry	63	62	72	71	76	83	85	82	76	68	61	53	50	46	49	55
1986	Wet	61	64	64	70	75	80	84	83	75	69	62	57	55	47	45	56
1987	Dry	62	64	72	77	78	81	82	82	78	72	61	56	52	49	47	58
1988	Dry	64	70	71	69	74	80	86	83	79	71	63	57	51	48	46	55
1989	Normal-Dry	61	65	73	72	76	81	84	83	77	70	62	60	56	47	47	52
1990	Dry	60	67	72	73	76	80	86	84	79	72	61	59	53	45	47	57
1991	Normal-Dry	61	62	67	70	75	81	86	83	81	73	63	59	55	48	45	56
1992	Dry	64	67	71	74	80	81	83	84	79	72	64	59	53	47	49	56
1993	Wet	65	67	68	71	75	79	84	83	80	72	66	57	52	48	48	54
1994	Dry	65	66	70	72	76	81	86	84	79	70	59	53	49	46	52	57
1995	Wet	60	62	67	67	72	78	83	85	81	72	65	65	60	53	51	59
1996	Normal-Wet	61	67	69	70	74	81	85	85	78	69	58	58	56	51	51	55
1997	Wet	61	69	65	72	77	80	85	85	81	70	66	59	57	48	50	54
1998	Wet	60	66	62	70	69	76	84	86	81	69	60	56	56	47	46	56
1999	Normal-Wet	61	63	62	71	75	82	86	83	81	73	66	62	55	50	51	57
2000	Normal-Wet	60	66	72	70	76	83	83	84	78	69	60	54	50	50	49	54
2001	Normal-Dry	60	70	67	72	82	82	83	83	80	72	65	61	55	48	49	56
2002	Normal-Dry	62	64	71	70	76	81	86	84	81	71	62	60	57	52	52	58
2003	Normal-Wet	64	66	67	67	75	82	85	83	80							
	Average	62	65	68	70	75	80	84	84	79	70	62	58	53	48	48	56
	Wet	60	64	65	69	73	78	83	84	78	70	63	57	54	48	48	55
	Normal-Wet	62	65	67	70	76	82	85	84	79	69	61	57	53	49	48	55
	Normal-Dry	61	65	70	71	77	82	85	83	79	70	62	59	54	48	48	55
	Dry	63	67	71	73	77	81	84	84	79	72	61	57	52	47	48	57

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 161: Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															45	53
1980	Wet	56	60	65	70	74	77	80	80	75	68	61	54	52	45	45	55
1981	Normal-Dry	59	64	69	72	75	82	83	82	77	66	59	56	52	45	43	54
1982	Wet	60	62	60	63	68	77	83	81	75	67	55	50	49	49	46	51
1983	Wet	55	56	58	59	65	68	73	81	77	68	62	55	48	49	49	53
1984	Normal-Wet	64	65	67	69	77	81	84	82	78	65	58	53	46	44	40	53
1985	Normal-Dry	63	63	72	71	74	80	83	81	74	66	59	51	46	43	47	53
1986	Wet	56	60	61	67	71	78	83	81	74	67	60	54	53	44	43	54
1987	Dry	62	64	71	75	77	80	81	81	76	70	58	53	50	47	46	57
1988	Dry	63	69	70	66	73	78	84	81	76	69	60	55	48	46	45	54
1989	Normal-Dry	60	64	72	71	76	79	82	81	76	68	59	57	54	45	46	50
1990	Dry	59	66	71	72	73	79	84	83	78	70	58	57	52	43	46	55
1991	Normal-Dry	61	66	68	70	75	80	84	82	78	69	60	57	53	47	43	55
1992	Dry	64	67	72	73	78	79	81	82	76	70	61	55	50	45	46	54
1993	Wet	64	67	68	70	75	79	83	82	78	70	63	55	49	46	45	51
1994	Dry	64	65	68	70	75	81	84	83	78	68	56	51	47	43	49	55
1995	Wet	58	59	63	62	66	76	76	83	79	69	63	62	58	51	49	57
1996	Normal-Wet	59	66	69	67	72	79	83	82	75	66	54	56	54	49	49	53
1997	Wet	59	69	64	71	77	79	83	82	78	67	64	56	53	45	48	52
1998	Wet	59	65	59	66	64	71	78	84	78	67	59	54	55	45	44	56
1999	Normal-Wet	62	64	61	71	74	81	84	82	78	71	63	60	53	48	49	54
2000	Normal-Wet	59	64	71	70	75	80	81	82	76	66	57	52	48	48	48	53
2001	Normal-Dry	60	70	67	72	81	81	81	80	77	69	61	57	52	45	48	56
2002	Normal-Dry	62	64	71	68	74	79	84	82	80	69	59	57	54	50	51	57
2003	Normal-Wet	64	66	69	67	74	81	83	80	77							
	Average	61	64	67	69	73	79	82	82	77	68	60	55	51	46	46	54
	Wet	58	62	62	66	70	76	80	82	77	68	61	55	52	47	46	54
	Normal-Wet	62	65	67	69	74	80	83	81	77	67	58	55	50	47	46	53
	Normal-Dry	61	65	70	71	76	80	83	81	77	68	60	56	52	46	46	54
	Dry	62	66	70	71	75	80	83	82	77	69	59	54	49	45	46	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 162: Simulated Temperature at San Joaquin River Below Mariposa Bypass Return (Head of Reach 4B2) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															45	53
1980	Wet	56	60	66	70	74	77	80	80	75	68	61	54	52	45	45	55
1981	Normal-Dry	59	64	69	72	75	82	83	82	77	66	59	56	52	45	43	54
1982	Wet	60	62	60	63	70	79	83	81	75	67	56	50	48	49	46	52
1983	Wet	55	55	58	59	65	68	73	81	77	68	62	55	48	48	49	53
1984	Normal-Wet	65	65	67	69	77	81	85	82	78	65	58	53	46	44	40	54
1985	Normal-Dry	63	63	72	71	74	80	83	81	74	66	59	51	46	43	47	53
1986	Wet	58	60	62	67	73	78	83	81	74	67	60	54	53	44	43	54
1987	Dry	62	64	71	75	77	80	81	81	76	70	58	53	50	47	46	57
1988	Dry	63	70	70	67	73	78	84	81	76	69	60	55	48	46	45	54
1989	Normal-Dry	60	65	72	71	76	79	82	81	76	68	60	58	54	45	46	50
1990	Dry	60	66	71	72	73	79	84	83	78	70	58	57	52	43	46	55
1991	Normal-Dry	61	66	68	70	75	80	84	82	78	69	60	57	53	47	43	55
1992	Dry	64	67	72	73	78	79	81	82	76	70	61	55	50	45	46	54
1993	Wet	64	67	68	70	75	78	83	82	78	70	63	55	49	46	45	52
1994	Dry	64	65	68	70	75	81	84	83	78	68	56	51	47	43	49	55
1995	Wet	58	59	63	63	68	77	76	83	79	69	63	62	58	51	49	57
1996	Normal-Wet	59	67	69	67	72	79	83	82	75	66	55	56	54	48	49	53
1997	Wet	59	69	64	71	77	79	83	82	78	67	64	56	54	45	48	52
1998	Wet	60	64	59	66	65	73	78	84	78	67	59	54	55	45	44	56
1999	Normal-Wet	62	64	61	72	74	81	84	82	78	71	63	60	53	48	49	54
2000	Normal-Wet	59	65	72	70	75	80	81	82	76	66	57	52	48	48	48	53
2001	Normal-Dry	60	70	67	72	81	81	81	80	77	69	61	57	52	45	48	56
2002	Normal-Dry	62	64	71	69	74	79	84	82	80	69	59	57	55	51	51	57
2003	Normal-Wet	64	66	69	67	74	81	83	80	77							
	Average	61	64	67	69	74	79	82	82	77	68	60	55	51	46	46	54
	Wet	59	62	62	66	71	76	80	82	77	68	61	55	52	47	46	54
	Normal-Wet	61	65	67	70	75	80	83	82	77	67	58	55	50	47	46	53
	Normal-Dry	61	65	70	71	76	80	83	81	77	68	60	56	52	46	46	54
	Dry	63	66	70	71	75	80	83	82	77	69	59	54	49	45	46	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 163: Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															46	53
1980	Wet	56	60	64	68	72	75	80	82	77	70	63	56	53	47	46	56
1981	Normal-Dry	61	64	70	72	75	83	85	83	79	67	60	57	53	47	44	53
1982	Wet	57	58	59	63	69	75	83	83	76	68	57	52	50	49	46	51
1983	Wet	56	56	59	59	65	69	73	82	73	66	61	55	49	49	49	54
1984	Normal-Wet	65	67	67	69	77	82	86	83	80	66	59	54	47	45	42	55
1985	Normal-Dry	64	64	73	71	75	81	85	82	75	68	60	52	47	45	49	53
1986	Wet	56	60	62	67	71	77	84	82	75	69	62	56	55	45	45	55
1987	Dry	63	65	73	77	78	81	82	82	78	72	59	55	51	48	47	58
1988	Dry	65	71	72	67	73	79	86	83	79	70	61	56	49	47	46	54
1989	Normal-Dry	62	66	73	73	76	80	84	82	77	69	61	59	55	46	47	51
1990	Dry	61	68	73	73	75	80	86	83	79	71	59	58	52	44	47	57
1991	Normal-Dry	62	64	69	70	75	80	85	83	80	72	61	59	54	47	44	55
1992	Dry	64	68	72	74	79	81	83	84	78	72	63	56	51	46	48	56
1993	Wet	65	67	68	70	74	79	83	83	79	72	65	56	50	47	48	53
1994	Dry	65	66	70	72	76	82	85	84	79	69	58	52	47	45	51	55
1995	Wet	57	59	63	62	67	75	76	85	80	71	65	64	59	52	51	59
1996	Normal-Wet	60	65	69	68	72	80	85	84	78	68	57	58	57	51	49	53
1997	Wet	60	70	65	72	77	80	85	84	80	69	66	57	56	47	50	52
1998	Wet	59	64	59	66	65	71	78	86	80	67	60	55	54	45	45	55
1999	Normal-Wet	62	64	62	74	74	82	86	83	80	73	64	61	53	49	50	56
2000	Normal-Wet	60	65	71	70	75	82	83	84	78	68	59	53	49	49	48	53
2001	Normal-Dry	59	70	67	73	81	82	83	82	79	71	63	60	54	47	49	55
2002	Normal-Dry	63	65	72	69	75	81	86	83	81	70	61	59	56	51	52	58
2003	Normal-Wet	65	67	69	68	75	82	85	82	79							
	Average	61	65	68	69	74	79	83	83	78	69	61	56	52	47	47	55
	Wet	58	62	62	66	70	75	80	83	77	69	62	56	53	48	47	54
	Normal-Wet	62	65	68	70	74	82	85	83	79	69	60	57	52	49	47	54
	Normal-Dry	62	65	71	71	76	81	85	83	79	70	61	58	53	47	47	54
	Dry	64	68	72	73	76	80	84	83	78	71	60	55	50	46	48	56

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 164: Simulated Temperature at San Joaquin River Below Eastside Bypass Return (Head of Reach 5) (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															46	53
1980	Wet	56	60	64	68	72	76	80	82	77	70	63	56	53	47	46	57
1981	Normal-Dry	60	62	68	71	76	84	85	83	79	67	60	58	53	47	44	55
1982	Wet	59	60	59	63	70	76	83	83	76	68	57	52	50	49	46	52
1983	Wet	56	56	59	59	66	69	73	82	73	66	61	55	49	49	49	55
1984	Normal-Wet	64	64	65	68	78	82	86	83	80	66	59	55	48	46	42	55
1985	Normal-Dry	62	61	71	70	76	82	85	82	75	68	61	52	49	45	49	53
1986	Wet	57	60	62	67	71	77	84	82	75	69	62	57	55	46	45	56
1987	Dry	62	63	71	77	78	82	82	82	78	72	60	56	52	48	47	59
1988	Dry	63	68	71	68	74	80	86	83	79	70	62	56	50	47	46	55
1989	Normal-Dry	61	65	72	71	76	81	84	82	77	69	61	59	56	46	47	52
1990	Dry	60	67	72	73	76	80	86	83	79	71	59	59	53	44	47	58
1991	Normal-Dry	60	61	67	69	75	80	86	83	80	72	62	59	54	47	44	57
1992	Dry	64	66	71	74	80	81	83	84	78	72	64	58	53	46	48	56
1993	Wet	65	66	67	70	74	77	83	83	79	72	65	56	51	47	48	54
1994	Dry	65	65	69	72	76	81	85	84	79	70	58	52	49	45	51	57
1995	Wet	58	59	63	63	68	77	76	84	80	71	65	64	59	52	51	59
1996	Normal-Wet	60	65	68	68	74	80	85	84	78	68	57	58	56	50	49	53
1997	Wet	60	69	64	71	76	79	84	84	80	69	66	58	56	47	50	54
1998	Wet	59	63	59	66	65	73	78	86	80	68	60	56	56	46	45	56
1999	Normal-Wet	61	62	60	71	75	82	86	83	80	73	65	62	54	49	50	56
2000	Normal-Wet	59	66	71	69	75	82	83	84	78	68	59	53	50	49	48	54
2001	Normal-Dry	60	69	66	72	82	82	83	82	79	71	64	60	54	47	49	57
2002	Normal-Dry	61	63	71	69	75	81	86	83	81	70	61	59	56	51	52	58
2003	Normal-Wet	63	65	66	66	75	82	85	82	79							
	Average	61	64	67	69	74	79	83	83	78	70	61	57	53	47	47	55
	Wet	59	62	62	66	70	76	80	83	77	69	62	57	54	48	47	55
	Normal-Wet	61	64	66	69	75	82	85	84	79	69	60	57	52	49	47	54
	Normal-Dry	61	64	69	70	77	82	85	83	79	70	62	58	54	47	48	55
	Dry	63	66	71	73	77	81	84	83	78	71	61	56	51	46	48	57

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 165: Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	53
1980	Wet	57	61	65	68	72	76	80	80	75	68	61	55	53	47	47	55
1981	Normal-Dry	58	63	67	70	73	80	82	81	77	66	59	56	53	48	46	54
1982	Wet	58	60	61	66	71	77	82	81	74	66	57	52	50	48	45	52
1983	Wet	57	58	61	62	68	73	76	80	75	66	61	55	49	48	48	53
1984	Normal-Wet	62	63	65	68	75	79	83	81	77	65	58	54	48	46	44	54
1985	Normal-Dry	61	61	69	69	73	79	82	80	74	66	59	52	49	46	49	53
1986	Wet	58	61	64	68	72	78	82	80	74	67	60	55	54	47	46	54
1987	Dry	60	62	68	73	75	78	80	80	75	69	58	54	51	48	48	56
1988	Dry	61	66	67	66	71	77	83	81	76	68	60	55	50	48	48	54
1989	Normal-Dry	59	63	69	69	74	78	81	80	75	67	60	57	54	48	48	51
1990	Dry	58	64	68	70	72	78	83	82	77	69	58	57	52	45	47	54
1991	Normal-Dry	60	64	66	69	74	79	83	82	78	70	60	57	53	48	46	55
1992	Dry	62	64	69	72	77	79	81	82	77	70	62	56	51	47	47	54
1993	Wet	63	65	67	69	74	79	83	81	77	69	62	55	51	48	48	53
1994	Dry	62	63	66	69	73	80	83	82	77	68	57	52	49	46	50	55
1995	Wet	57	59	64	64	69	76	79	83	78	69	62	61	57	52	50	57
1996	Normal-Wet	59	65	68	66	71	78	82	81	75	66	57	57	54	50	49	53
1997	Wet	59	66	63	69	76	78	83	82	78	67	63	56	54	48	50	52
1998	Wet	58	65	60	68	67	74	80	83	78	67	59	55	55	47	48	55
1999	Normal-Wet	60	62	61	69	72	79	83	81	77	69	62	59	53	50	51	55
2000	Normal-Wet	58	63	68	68	73	79	80	81	75	66	58	54	50	50	49	53
2001	Normal-Dry	58	67	65	70	78	79	80	80	77	68	61	57	52	47	49	55
2002	Normal-Dry	60	63	68	67	73	78	83	81	79	68	59	57	55	51	51	56
2003	Normal-Wet	61	64	66	66	73	80	82	80	77							
	Average	59	63	66	68	73	78	82	81	76	68	60	56	52	48	48	54
	Wet	58	62	63	67	71	76	80	81	76	67	61	56	53	48	48	54
	Normal-Wet	60	63	66	68	73	79	82	81	76	67	59	56	51	49	48	54
	Normal-Dry	59	63	67	69	74	79	82	80	77	67	60	56	53	48	48	54
	Dry	61	64	68	70	74	78	82	81	76	69	59	55	51	47	48	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 166: Simulated Temperature at San Joaquin River Above Merced Confluence (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															47	53
1980	Wet	57	62	65	69	72	76	80	80	75	68	62	56	53	47	47	55
1981	Normal-Dry	59	63	68	70	74	81	83	81	77	66	60	57	53	48	46	54
1982	Wet	59	61	61	66	72	77	82	81	75	66	57	52	50	48	45	52
1983	Wet	57	58	61	62	69	73	76	81	75	67	61	55	49	48	48	54
1984	Normal-Wet	63	64	66	68	76	80	84	81	78	65	58	54	48	46	44	54
1985	Normal-Dry	61	62	70	70	74	80	83	80	74	66	60	53	49	46	49	54
1986	Wet	59	62	64	68	73	78	82	80	74	67	60	56	54	47	46	55
1987	Dry	61	63	69	74	75	79	80	80	76	70	59	55	52	49	48	57
1988	Dry	62	67	69	66	72	77	83	81	76	68	60	56	50	48	48	54
1989	Normal-Dry	60	64	71	70	75	78	81	80	76	68	60	58	55	48	48	51
1990	Dry	59	65	70	70	73	78	83	82	77	70	59	58	53	45	47	55
1991	Normal-Dry	60	63	67	69	74	79	83	82	78	70	61	58	54	48	46	55
1992	Dry	63	65	70	72	78	79	81	83	77	71	62	57	52	47	47	54
1993	Wet	63	66	66	69	74	78	83	81	77	70	63	56	51	48	48	53
1994	Dry	63	64	68	70	74	80	84	82	78	68	58	52	49	46	50	55
1995	Wet	58	59	64	64	70	77	79	83	78	69	63	62	58	52	50	57
1996	Normal-Wet	59	65	68	67	72	78	82	82	75	66	57	57	55	49	49	53
1997	Wet	59	67	64	71	76	79	83	83	79	67	64	57	55	48	50	53
1998	Wet	59	64	60	68	68	74	81	83	78	67	59	55	55	47	48	55
1999	Normal-Wet	60	63	60	71	73	80	83	81	78	70	63	60	54	50	51	55
2000	Normal-Wet	58	63	70	69	74	79	81	81	76	66	58	53	50	50	49	53
2001	Normal-Dry	59	68	66	71	79	80	80	80	77	68	62	58	53	47	49	56
2002	Normal-Dry	61	63	70	68	73	78	83	81	79	68	60	57	55	51	51	57
2003	Normal-Wet	62	65	67	66	73	80	82	80	77							
	Average	60	64	66	69	73	78	82	81	77	68	60	56	52	48	48	54
	Wet	59	62	63	67	72	77	81	81	76	68	61	56	53	48	48	54
	Normal-Wet	60	64	66	69	74	79	83	81	77	67	59	56	52	49	48	54
	Normal-Dry	60	64	68	70	75	79	82	81	77	68	60	57	53	48	48	54
	Dry	62	65	69	71	74	79	82	82	77	69	60	55	51	47	48	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 167: Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - No-Action Alternative**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															48	53
1980	Wet	56	60	64	66	69	76	80	79	71	65	60	54	53	48	48	55
1981	Normal-Dry	58	62	67	69	72	80	82	80	76	65	58	56	52	48	46	53
1982	Wet	57	59	59	63	67	74	79	79	73	62	55	51	50	48	46	52
1983	Wet	56	57	60	60	67	70	73	77	71	62	59	55	49	49	49	53
1984	Normal-Wet	61	63	64	67	74	78	83	81	77	64	57	53	51	50	46	54
1985	Normal-Dry	60	61	69	68	71	78	82	80	73	65	58	51	49	46	49	53
1986	Wet	58	60	62	65	70	77	82	80	73	66	59	54	53	46	46	54
1987	Dry	60	62	68	72	73	78	80	79	75	68	57	53	51	48	48	56
1988	Dry	61	66	67	65	70	76	83	80	76	67	58	54	49	48	48	54
1989	Normal-Dry	58	62	68	68	72	77	81	80	75	67	59	56	53	47	48	51
1990	Dry	57	63	67	68	71	77	83	82	77	68	56	56	51	46	48	54
1991	Normal-Dry	58	61	65	67	71	78	82	81	77	68	59	55	52	48	46	55
1992	Dry	61	64	68	70	75	78	81	82	76	68	59	54	50	47	48	54
1993	Wet	63	64	63	64	70	75	81	75	72	64	61	54	51	48	48	52
1994	Dry	61	62	65	66	70	78	80	82	77	66	55	51	49	47	50	55
1995	Wet	57	58	62	62	66	69	76	80	74	62	61	60	56	51	50	55
1996	Normal-Wet	57	62	66	64	68	78	82	81	75	64	56	56	54	50	50	53
1997	Wet	57	64	62	66	73	77	82	82	78	66	62	55	54	48	50	52
1998	Wet	57	63	59	66	65	71	77	79	71	62	58	55	54	48	49	54
1999	Normal-Wet	58	62	60	63	69	78	83	81	77	68	61	58	53	50	51	54
2000	Normal-Wet	56	60	67	64	70	79	80	80	75	64	57	53	50	50	49	52
2001	Normal-Dry	58	66	63	66	73	78	79	79	76	67	59	57	52	48	49	55
2002	Normal-Dry	59	62	67	65	69	77	82	80	78	66	58	56	54	51	51	55
2003	Normal-Wet	61	63	64	63	69	78	82	79	76							
	Average	59	62	64	66	70	77	81	80	75	65	58	55	52	48	48	54
	Wet	58	61	61	64	68	74	79	79	73	64	59	55	52	48	48	54
	Normal-Wet	59	62	64	64	70	78	82	80	76	65	58	55	52	50	49	53
	Normal-Dry	58	62	67	67	71	78	81	80	76	66	59	55	52	48	48	54
	Dry	60	63	67	68	72	78	81	81	76	68	57	54	50	47	48	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit

**Table 168: Simulated Temperature at San Joaquin River Below Merced Confluence (deg. F) - Proposed Action**

WY	Year Type	Mar 1-15	Mar 16-31	Apr 1-15	Apr 16-30	May 1-31	Jun 1-30	Jul 1-31	Aug 1-31	Sep 1-30	Oct 1-31	Nov 1-10	Nov 11-20	Nov 21-30	Dec 1-31	Jan 1-31	Feb 1-28
1979	Normal-Wet															48	53
1980	Wet	56	60	64	66	69	76	80	79	72	65	60	54	53	48	48	55
1981	Normal-Dry	58	62	68	70	73	81	82	81	77	66	59	56	53	48	46	53
1982	Wet	57	60	59	63	67	74	79	80	73	62	55	52	50	48	46	52
1983	Wet	56	57	60	60	67	70	73	77	71	62	60	55	49	49	49	53
1984	Normal-Wet	62	63	65	68	75	79	83	81	77	64	58	53	50	50	46	54
1985	Normal-Dry	61	61	70	69	72	79	82	80	74	65	59	52	49	46	49	54
1986	Wet	58	60	62	65	70	77	82	80	73	66	60	55	54	46	46	54
1987	Dry	60	62	69	73	74	78	80	80	76	69	58	54	51	48	48	57
1988	Dry	62	67	68	66	71	77	83	81	76	68	59	55	50	48	48	54
1989	Normal-Dry	59	63	70	70	73	77	81	80	75	67	59	57	54	47	48	51
1990	Dry	58	65	69	69	72	77	83	82	77	69	57	57	52	46	48	55
1991	Normal-Dry	59	62	66	68	73	78	83	81	78	69	60	57	53	48	46	55
1992	Dry	62	65	69	71	76	79	81	82	76	69	60	55	51	47	48	54
1993	Wet	63	65	63	64	70	76	81	76	72	64	62	55	51	48	48	53
1994	Dry	63	63	67	67	71	79	80	82	77	66	56	51	49	47	50	55
1995	Wet	58	58	62	62	66	68	76	80	75	62	61	61	57	52	50	55
1996	Normal-Wet	57	62	67	65	68	78	82	81	75	65	56	57	54	50	50	53
1997	Wet	57	65	63	69	74	79	83	82	78	67	63	56	54	48	50	53
1998	Wet	57	63	59	66	65	70	77	79	71	63	59	55	55	48	49	54
1999	Normal-Wet	59	62	60	66	70	79	83	81	77	69	62	59	53	50	51	54
2000	Normal-Wet	56	61	69	66	72	79	80	81	75	65	57	53	50	50	49	52
2001	Normal-Dry	58	68	65	68	74	79	80	79	77	67	60	57	52	48	49	55
2002	Normal-Dry	60	62	69	67	70	77	82	80	79	67	59	56	54	51	51	56
2003	Normal-Wet	62	64	66	65	71	79	82	79	76							
	Average	59	62	65	67	71	77	81	80	75	66	59	55	52	48	48	54
	Wet	58	61	61	64	68	74	79	79	73	64	60	55	53	48	48	54
	Normal-Wet	59	62	65	66	71	79	82	81	76	66	58	55	52	50	49	53
	Normal-Dry	59	63	68	69	73	79	82	80	77	67	59	56	52	48	48	54
	Dry	61	64	68	69	73	78	81	81	76	68	58	54	50	47	48	55

## Notes:

Summarized from From SJR5Q flow and temperature model

Simulation Period: Jan 1980 - Sep 2003

Year type as defined by the Restoration Year Types

Key: Deg. = degree, F = Fahrenheit